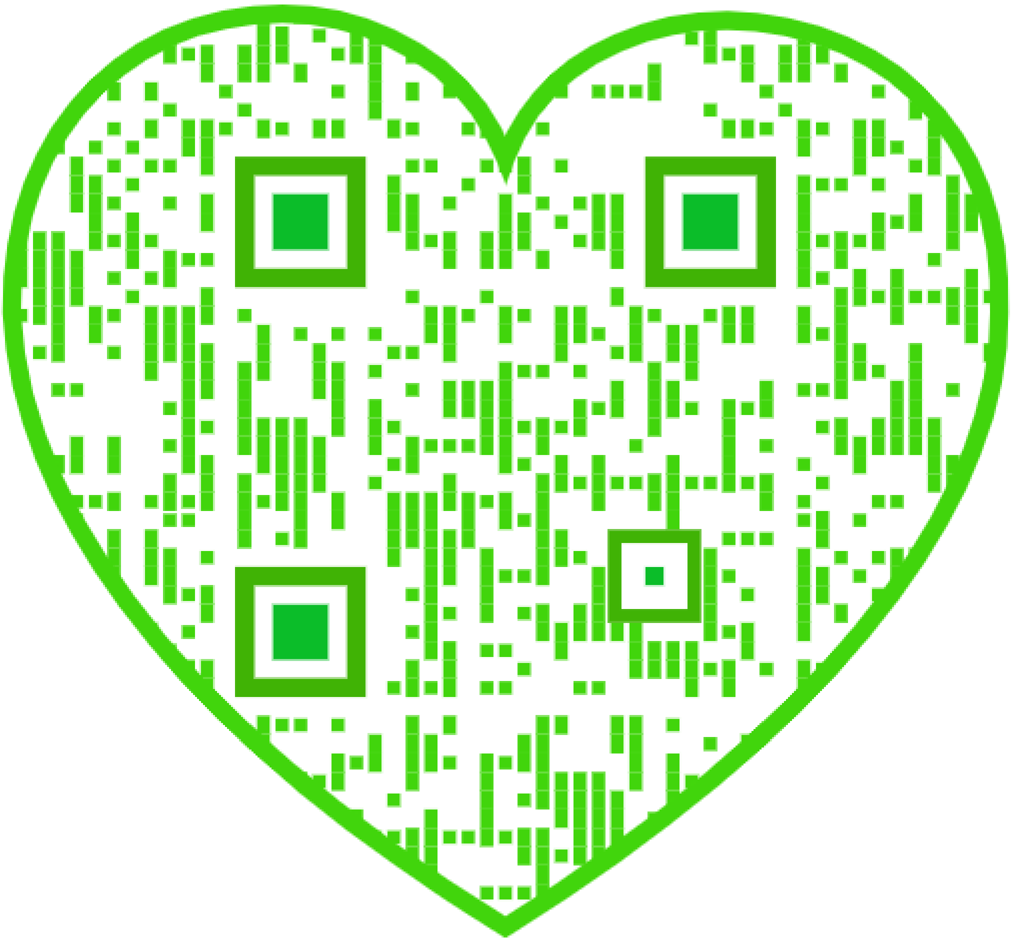
May 2025 The International Publication of the American Society of Cinematographers

American Cinematographer

The Stills Issue



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MAY 2025 VOL. 106 NO. 5

American
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Alice (2018), a still photo by ASC member Arlene Nelson, taken in Melbourne, Australia with a Canon EOS 5D Mark IV and Canon EF 50mm *f*/1.8 lens.

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This budget-conscious version of our revised 11th edition of our essential technical reference is now available from the American Society of Cinematographers.

With the same content as our hardback version, this edition is designed for on-set use and is a must-have for cinematographers and other motion-imaging professionals — **at a reduced price.**

Edited by M. David Mullen, ASC and ASC associate member Rob Hummel, contributors to this edition include Society members Bill Bennett, Christopher Chomyn, Richard Crudo, Richard Edlund, John C. Hora, Levie Isaacs, Dennis Muren, James Neihouse, Sam Nicholson, Steven Poster, Christopher Probst, Pete Romano, Roberto Schaefer and David Stump.

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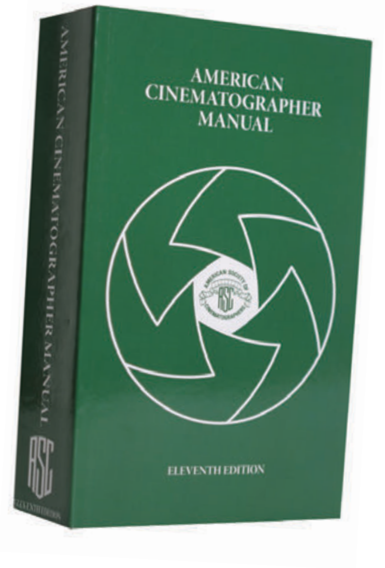
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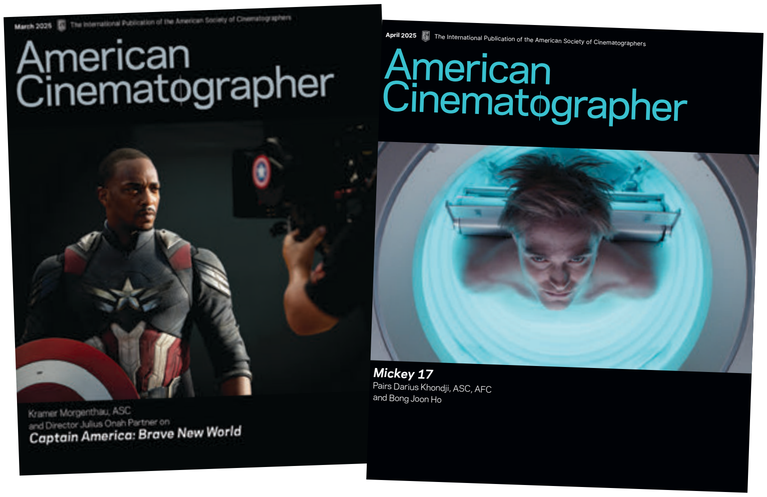
March 2025
American Cinematographer
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Captain America: Brave New World
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The ASC is not a labor union or a guild, but an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as directors of photography and have demonstrated outstanding ability. ASC membership has become one of the highest honors that can be bestowed upon a professional cinematographer — a mark of prestige and excellence.

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President's Desk

PORTRAIT BY JOHN SIMMONS, ASC.

The ASC recently wrapped our annual Awards ceremony, and the event brought many of us together in an emotionally resonant way. I saw that in maintaining contact with Society members and crews displaced by the January wildfires in L.A., our organization serves as a point of normalcy, where we consciously do our part to help shape a positive and meaningful future.

In my own experience as an ASC member, we do this through the consistent use of our positive voice. Doing so clearly conveys that we care deeply about our members, crews and staff, and that we also have a profound respect for the ASC's history. By "voice," I mean *all* communication. I've noticed that nearly every conversation with members and supporters over the years has been respectful and positive — perhaps even curiously so! All are equal at the ASC. No matter how many awards one has, or how many credits, and no matter what your race or gender is, the ASC is where you go to celebrate the way life should be.

If guests at our Awards show have been displaced, we will lower the volume of the music so they can engage in much-needed conversations. If you need some normalcy, come to the Clubhouse and learn again why this art form is something you cannot live without. And if you're at the beginning of your cinematography career and want to enrich your knowledge, apply to our Vision Mentorship Program for a chance to learn from one of our member-mentors. Along the way, you'll also discover how we are expanding and empowering our growing voice, so that we may join the many groups working to ensure inclusion and equality for anyone who wants to work alongside us on set.

This positive spirit is shared by almost everyone with whom we collaborate. Rare Breeds Camera Rentals recently organized a support event for fire relief, naming our ASC Relief Fund as the recipient of the proceeds. Other donors — whether companies such as Sony and Nanlux or generous individuals — have paved the way to positively change the lives of the hundreds of residents who can access our fund. The Society thanks all of you, sincerely.

Perhaps we can rally this positive spirit and create energy behind a cause that will help the entire state of California. A simple reach-out to Governor Gavin Newsom, requesting a larger Film Production Tax Incentive to encourage shooting in the region, is needed and would be truly welcomed by our crews.

We share this positive energy because we feel it is the right path forward for our art form, our careers and our industry. I look forward to being part of the ASC's growth, and to the evolution of our voice by the next generation of cinematographers.

Best regards,

Shelly Johnson
ASC President

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Session instructor Kramer Morgenthau, ASC (at camera) with his class.

WHAT OUR STUDENTS ARE SAYING

"The demonstrations illustrated the complex problems we all face while trying to tackle a subjective art form."

"The variety of the demos was the most useful. Seeing the way the different cinematographers shot the same set was very striking."

"The demonstrations and lectures by the ASC members were incredibly informative and inspiring. I loved hearing how every DP has their own flavor and that there's no right or wrong to creating a shot."

"They took a lot of mystery out of the job and I got to meet some heavy hitters in the process."

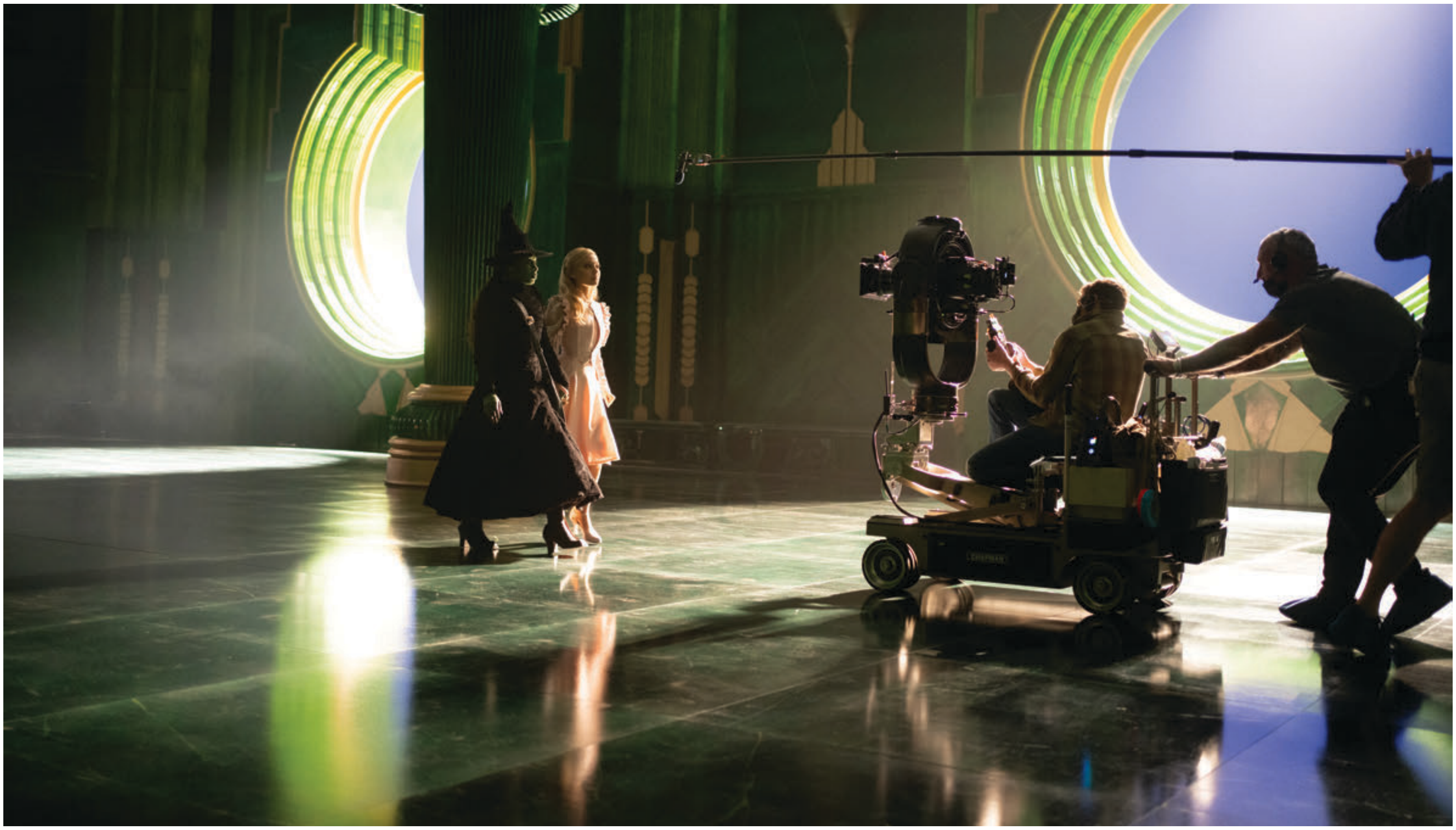
"It was great being on set with such incredible talents and learning a bunch of new techniques."

"The most valuable portion for me was being able to take the time to explore each demonstration and observe the teams — how they communicate and work together, and then hearing the instructors walk through their thought processes."

Dates and details at theasc.com/education/master-class

By Jay Holben

The Birth and Evolution of the Dolly



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The crew executes a move featuring Ariana Grande and Cynthia Erivo on the set of *Wicked* (shot by Alice Brooks, ASC), aided by a Chapman/Leonard Hustler V dolly with a leveling head.

The first use of a camera mounted to a moving object, as is widely recognized, was in 1897, when director-cinematographer Jean Alexandre Louis Promio, one of the Lumières' traveling filmmakers and exhibitors, put a camera on a gondola in Venice to film the British Mutoscope and Biograph Co.'s *Panorama du Grand Canal pris d'un Bateau*.

For several years afterward, instances of tracking shots in filmmaking were quite scarce, but the Biograph company did help to set the trend, producing three single-shot films, starting with *Hooligan in Jail* (1903), that each featured a slow dolly move from a long shot to a close-up on the main character's face. Alf Collins' *The Runaway Match* (aka *Marriage by Motor*), also from 1903, added to the nascent mix with an elaborate sequence of moving-camera tracking shots from vehicle to vehicle. Most films of the era, however, were shot with stationary cameras.

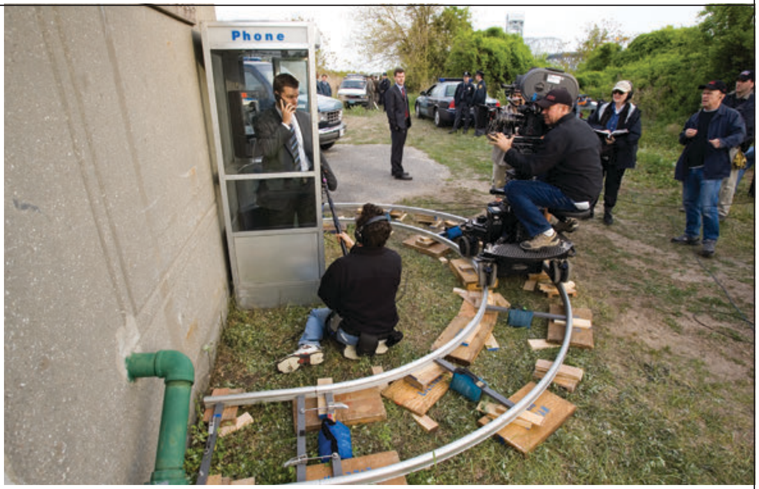
"Cabiria Movement"

Perhaps the most influential early dolly shot appears in Giovanni Pastrone's *Cabiria* (1914). To achieve it, Pastrone and cinematographer Segundo de Chomón devised a wheeled platform and used it to move the camera slowly throughout their vast sets. For many years after that, any dollying or tracking of the camera independent of a character was called "*Cabiria* movement."

Filmmakers who soon followed Pastrone's example included D.W. Griffith, with *Home, Sweet Home* (1914), photographed by G.W. "Billy" Bitzer, and Allan Dwan, with *David Harum* (1915), on which future ASC member Harold Rosson used a rolling platform. William C. Foster, who would shortly become one of the founding members of the ASC, incorporated dolly shots into Charlie Chaplin's *The Vagabond* (1916), taking the technique to the next level by not just moving across the scene, but also moving the camera while being closer to the actor — and at a faster speed.

Guido Seeber and director Lupu Pick used a platform with rubber tires while filming *New Year's Eve* (aka *Sylvester*, 1924), and the film's screenwriter, Carl Mayer, reportedly suggested a similar moving-camera technique for a subsequent film of his, *The Last Laugh* (1924), which would be directed by F.W. Murnau and photographed by Karl Freund, ASC. The latter film is now considered a seminal influence on the dolly work that followed.

The introduction of sound forced the cinematographer and camera to be sequestered in a soundproof box on set, but Alfred Hitchcock, for one, was undeterred: He put the entire camera box on wheels for *Blackmail* (1929). However, the majority of filmmakers went back to

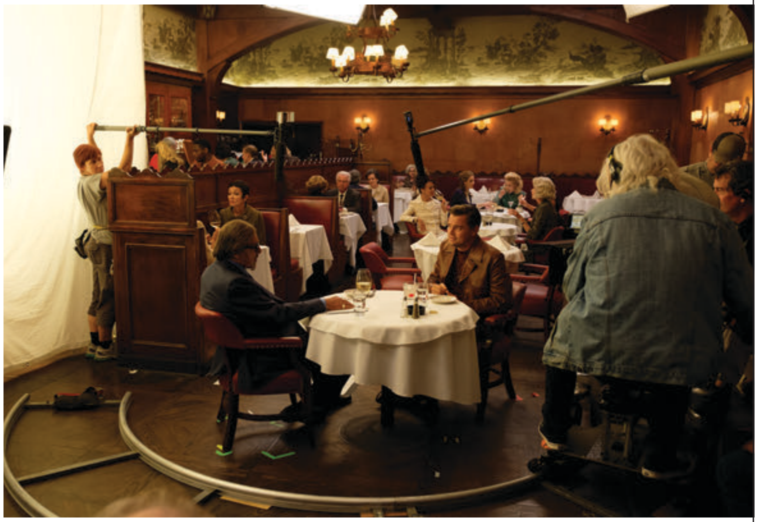


Above: A Panther Evolution dolly — with hard-rubber "combination wheels" on a rounded, curved track — helps capture a scene featuring Matt Damon for *The Departed* (shot by Michael Ballhaus, ASC, BVK). Below: Robert Richardson, ASC films a semi-circular dolly shot for *Once Upon a Time… in Hollywood*, featuring Leonardo DiCaprio (right) and Al Pacino.

using stationary cameras. Sound blimps, which eliminated the need for the booth, arrived in the early 1930s and allowed the camera some freedom of movement again.

Early Models

Most early tracking shots were achieved with steerable platforms custom-made for each production. They were typically 3'x5' platforms with solid rubber tires and a pair of rear-steering wheels. Built into the unit was a support column for the camera that took the place of a tripod, and some had the ability to raise or lower the camera's position, but not smoothly enough to do it in shot. In 1931, director Lewis Milestone and cinematographer Glen MacWilliams employed a prototype "small" (it weighed 700 pounds) and extremely maneuverable dolly — adapted from a design by John Arnold, ASC — that was later put into commercial production by Bell & Howell as the Rotambulator. It featured a central column on



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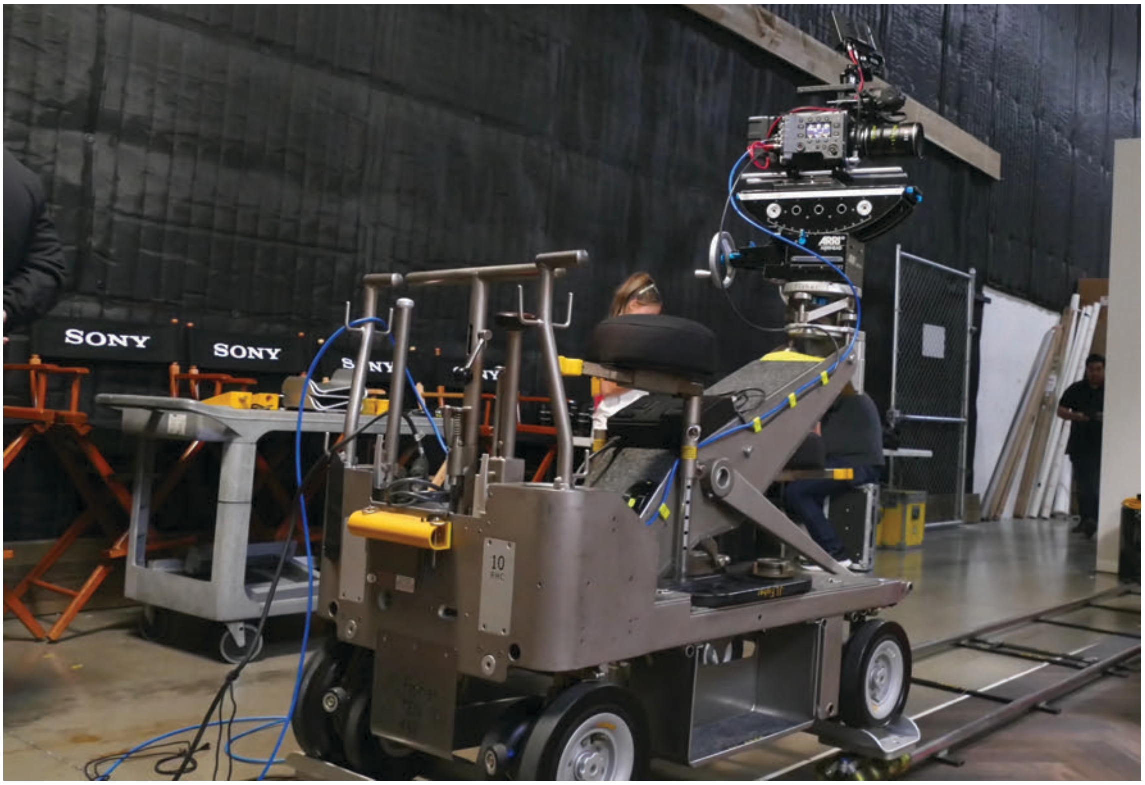

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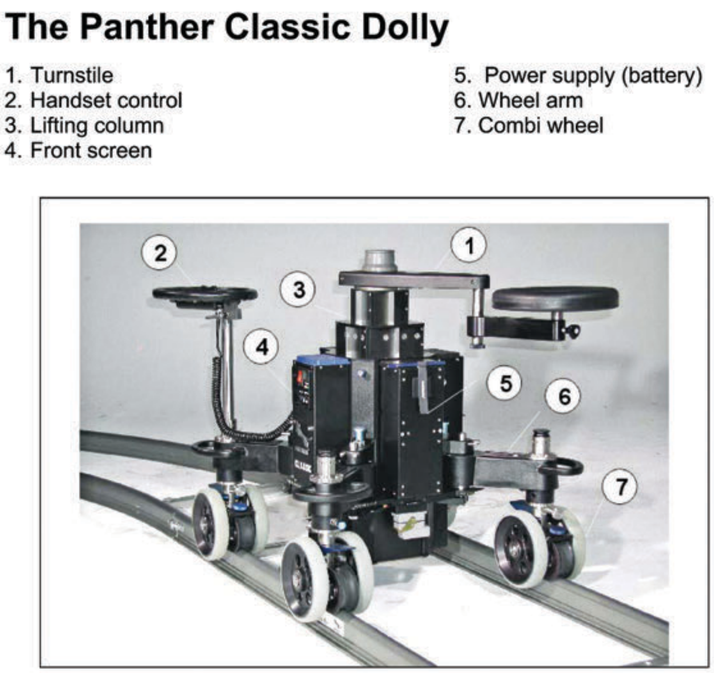


Top: A J.L. Fisher Model 10 dolly on straight track with traditional hard-rubber wheels on skateboard trays, onstage at the Sony Digital Media Production Center. Above: A breakdown of the components of a Panther Classic Dolly from the unit's instruction manual.

a 4'-wide turntable with built-in geared head, which could set the camera at any height between 18" and 7'. The camera could rise on the column for crane-like shots, and hydraulics could control panning and tilting. There were four small wheels around the circumference of the base — two at the front and a pair of steering ones at the back.

Twentieth Century-Fox's Velocilator, manufactured by the Fearless Camera Co., was lighter and featured an angled boom arm rather than a central column. It appears that the earliest patent filed for a dolly was granted to Studio Equipment Co. for inventor Victor R. Raby's "Camera Carriage" in 1936.

The Cinemobile — from Houston-Fearless, as the company was known after Fearless Camera Co. merged with Houston Corp. in 1950 — was an early example of a dolly that featured a hydraulic system to raise or lower the camera. Also introduced around that time was the "crab dolly," whose front wheels steer in the same direction as the rear wheels, enabling it to make quick changes to wheel positions to affect any kind of directional movement — a vast improvement over single-wheel or two-wheel steering of previous dolly systems. Steve Krilanovich earned an Academy Award for Scientific or Technical Achievement for this innovation in 1956.

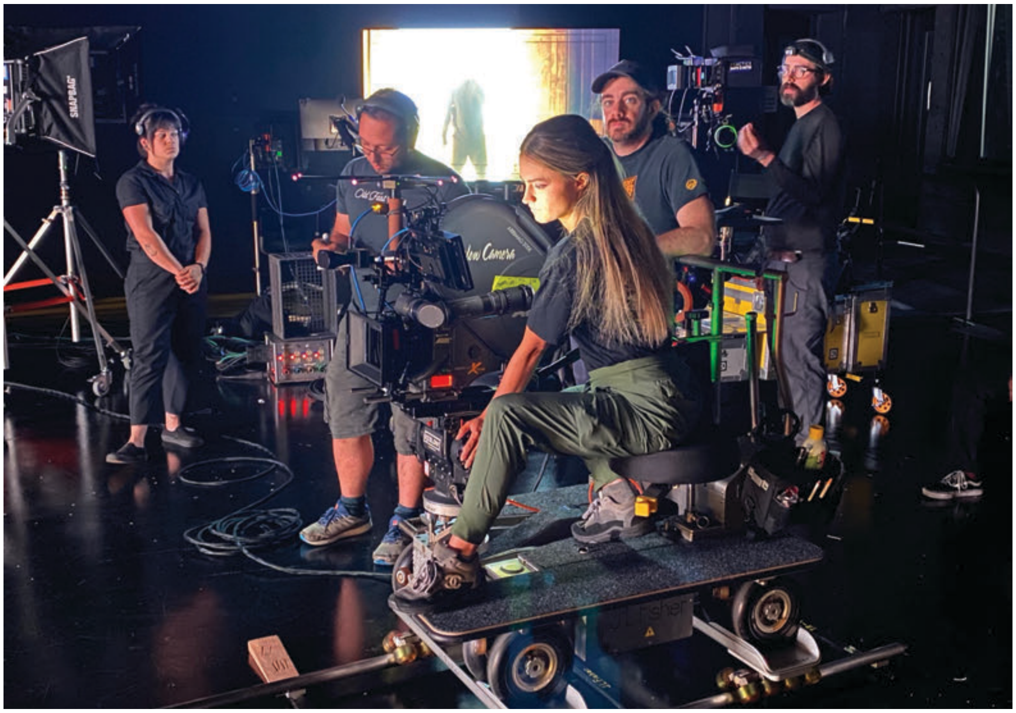
Theme and Variations

J.G. McAlister, known for manufacturing lighting, also produced a crab dolly, as did Moviola, a company best known for editing flatbeds. Both devices featured large, pneumatic balloon tires for smoother movement on uneven surfaces.

Then companies such as Colortran and Elemack came on the scene. The Colortran Mini-Crab and the Elemack Spyder Dolly (sometimes called the "Octopus") — which both emerged in the 1960s — each weighed just shy of 300 pounds, but the latter could very conveniently fit through doorways, making it a popular choice for location shooting. Elemack's Cricket Dolly, introduced in the 1980s, featured legs that were independently adjustable for considerations of stability and total width.

The German company Panther introduced its namesake dolly in 1983, and it is still a staple of production today, mostly in Europe. In the United States, the field is primarily dominated by Chapman/Leonard and J.L. Fisher; the former was established in 1945 (as Chapman Studio Equipment, which later merged with Leonard's Studio Equipment) and the latter in the early 1950s.

J.L. Fisher was initially a manufacturer of microphone booms, but in the early 1960s, the company introduced the



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Above: Cinematographer Kaity Williams operates an Arriflex 435 on a J.L. Fisher Model 11 dolly with skateboard wheels and sideboards for the *Stereopticon* teaser. Also on set are (from left) 2nd AC Nikki Skelly, 2nd AC Gustavo Perez, key grip Steven Mangurten and 1st AC Julian Splies. Below: The cover of an Elemack Cricket CK/2 dolly brochure.

Model 8 Camera Dolly (so named because it followed seven variations of mic booms). It was a three-wheeled chassis with a hydraulic arm, and it was quickly followed by the Model 9, and then the Model 10 in 1973. The more compact Model 11 was introduced in 1995. Models 9, 10 and 11 are still available today.

Chapman/Leonard started out manufacturing camera cranes before introducing the PeeWee dolly in 1980. It was followed by the Super PeeWee and its variations, of which the Super PeeWee II, III+, IV, IV+ and V are currently available from the company. They also offer the Hybrid dolly (and variations II, III, III+, IV and V) as well as the Hustler IV and V.

J.L. Fisher's Model 10 Dolly and the Chapman Hustler Dolly earned their respective developers Academy Awards for Technical Achievement, both in 1979.

A staple on most grip trucks today is the humble doorway dolly, a flat platform with

For professional dollies, skateboard wheels are sometimes employed with the main dolly wheels set into a pair of trays, under each of which are 16 skateboard wheels — a set of eight for each main wheel (four on each side of the curved rail).

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LEFT IMAGE FROM *MALCOLM X* (WARNER BROS.). RIGHT IMAGE FROM *VERTIGO* (PARAMOUNT).

Creative Applications

Director Spike Lee is known for a signature surrealistic shot achieved by placing the actor on a dolly (or on an attached secondary rolling platform) along with the camera. This results in the standing actor moving with the dolly, creating a "floating" experience. Lee has featured this shot — often referred to as a "double dolly" — in films including *Mo' Better Blues* and *Malcolm X* (pictured above, left), both photographed by Ernest Dickerson, ASC, as well as *Summer of Sam* (Ellen Kuras, ASC; *AC* June '99), *BlacKkKlansman* (Chayse Irvin, ASC, CSC), *Inside Man* (Matthew Libatique, ASC, LPS; *AC* April '06) and *25th Hour* (Rodrigo Prieto, ASC, AMC).

Director Alfred Hitchcock was well known for finding inventive ways to move the camera, and one of his noteworthy uses of the dolly is the combination dolly/zoom effect he achieved with Robert Burks, ASC to vividly convey the paralyzing acrophobia suffered by protagonist Scottie (James Stewart) in *Vertigo* (pictured above, right). To achieve the effect for the climactic sequence in the bell tower, the filmmakers combined a dolly-in on a large-scale miniature of the staircase with a simultaneous zoom-out, keeping the staircase the same size in shot but making the ground seem to drop away from Scottie.

— Jay Holben

A frame from British Mutoscope and Biograph Co.'s *Panorama du Grand Canal pris d'un Bateau* (1897), widely recognized as featuring the first-ever camera mounted to a moving object.

four rubber wheels and a two-wheel steering system attached to a long handle. (It could be argued that a wheeled tripod spreader is an even simpler dolly, but here I'll identify a "dolly" as a rolling platform that can hold a camera and at least the operator.)

Wheels, Track, Steering

Most dollies today have multiple options for wheels, including hard rubber, air-filled rubber and track wheels. Understanding the difference requires understanding the particular needs for a given shot. In many cases, traditional hard-rubber tires can be used on a truly flat surface. Pneumatic rubber tires are a bit more forgiving for small imperfections in the flooring, but for larger imperfections, grips bring in sheets of 4'x8' finishing-grade plywood (generally A grade) and lay that out over the existing floor to provide a uniform, flat surface (aka “dance floor”). These options can be very convenient because they don’t require the laying of dolly track.

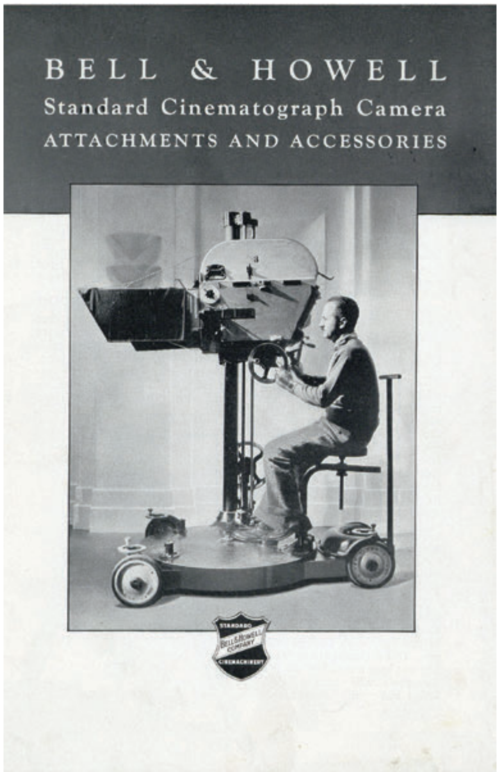
When not on a track, there are three primary modes of steering camera dollies: “rear,” or standard two-wheel rear steering; “crab,” which turns all four wheels to face the same direction to steer the dolly in a straight line in any direction without changing its orientation; and “round,” or four-wheel steering, which turns each wheel in a 90-degree orientation to its counterpart, allowing the dolly to spin in a circle around its central axis as tight as the width of the dolly.

When especially smooth moves are desired, track is often the solution. Track wheels have several variations specifically designed to work with the two shapes of rails. For rounded track, the wheels tend to be hard rubber, with “combination” (or “combi”) wheels being a popular option as they can work on either flat floor or track, allowing for quick transition between the two modes. Each combi wheel is actually a set of two, mounted side by side, with a larger outer diameter and a smaller inner diameter. It is this smaller-diameter portion — where the two wheels face each other — that rides along the top of the dolly track, while the larger external diameter rides along the side of the track to provide stability (or along the floor when not on rails).

For professional dollies, skateboard wheels are sometimes employed with the main dolly wheels set into a pair of trays, under each of which are 16 skateboard wheels — a set of eight for each main wheel (four on each side of the curved rail).

The wheels designed for square-shaped track generally have another set of wheels that ride along the inside of the track and make sure that the top wheels stay on the rails.

Round track will often come in 1"- or 1.5"-diameter tubing made of stainless steel or aluminum. The round shape makes the track flexible and is well suited for uneven situations, especially outdoors. The rounded track can also be rather forgiving to nicks and imperfections. Square track provides excellent contact for dolly wheels and better weight distribution of the dolly; it’s less flexible, but also less susceptible to warping or flexing under load.

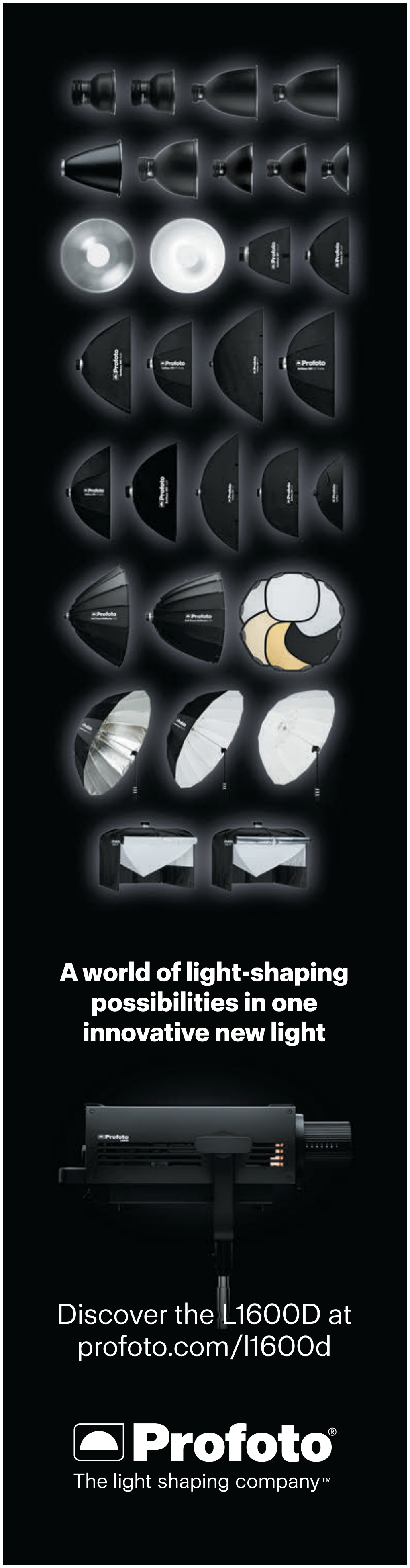


The cover of a Bell & Howell brochure featuring a Rotambulator dolly, which was adapted from a design by John Arnold, ASC.

Track is available in straight (generally 4' and 8' lengths, but there are variations from 2'-10') and curved (defined in the angle of turn each section of track provides, typically 45 and 90 degrees, but 15, 20, 30 and 60 degrees also exist). Each section of track will seamlessly interlink with the previous section and typically connect with tension clamps to keep the track secured.

Other dolly accessories include camera risers, which allow the camera to be mounted higher on the dolly; camera offsets, which allow the camera to be mounted at a distance away from the dolly; seats; sideboards, which are platforms that attach at various positions around the dolly chassis to allow for standing or placing of camera accessories such as batteries; and vibration-isolating heads.

Visit your local rental house or dolly manufacturer to learn more about these amazing tools and their potential for your projects.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Picture Partners By Iain Marcks

Checco Varese, ASC and director Patricia Riggen draw on their creative and personal bond to make the action drama *G20*

The relationship between a cinematographer and director is often compared to a marriage, reliant on shared goals, trust and respect. For cinematographer Checco Varese, ASC and director Patricia Riggen, whose latest collaboration is the action thriller *G20*, it is not a metaphor — they actually *are* married. After meeting on a commercial shoot in Mexico City, the two filmmakers formed a close bond over 20 years on commercials, television series (including *Jack Ryan* and *Dopesick*) and feature films such as *Under the Same Moon* (2007) and *The 33* (*AC* Dec. '15).

G20 depicts a terrorist attack on the titular intergovernmental forum, which has brought the leaders of the world's largest economic powers to Cape Town, South Africa. Among the principals are U.S. President Danielle Sutton (Viola Davis), who taps her combat experience to thwart the terrorist plot. Riggen and Varese recently connected with *AC* to discuss the project, which was shot on location and stages in Cape Town.

***American Cinematographer*: Given that both of you work in the industry, are you usually in the same city at the same time? And is it difficult to find projects to collaborate on?**

Patricia Riggen: We live in L.A. and have raised a beautiful 17-year-old daughter, but as filmmakers, we're nomads — we're only in the same city when we're shooting the same movie. Right now, Checco is in South Africa and I'm in L.A. He often goes off to work with other directors, but when I make movies, I normally work with him. He has shot all of my features, but when I do TV, sometimes I join a show that already has a DP, so I end up working with other cinematographers. When I direct pilots, I get to pick my cinematographer, and we work together if Checco's available. We got lucky with *Jack Ryan* because he came in after the show had already started. There were two cinematographers and four directors, but at some point, they realized they didn't have enough DP power to keep up with the schedule. Checco happened to be visiting me on set, and they literally grabbed him, put him in a van and sent him scouting! Next thing we knew, he was shooting the series; he ended up doing my three episodes.

How many projects have you

collaborated on?

Riggen: I think it's six features, plus my Student Oscar-winning short [*La Milpa*], my Sundance award-winning documentary short [*Family Portrait*], *Jack Ryan*, maybe three pilots, and a couple of other shorts.

Checco Varese, ASC: And we've done a lot of commercials together.

Riggen: It's been a 20-year collaboration. We met on a job in Mexico — Checco was shooting a commercial and I was the production coordinator.

Varese: I was a Steadicam operator on that job.

Riggen: Later, I went back to school — Columbia University in New York — to become a director.

What do you like about working together?

Riggen: As a female director, it's good to have a cinematographer who has my back. Also, for me, working with Checco is about telling the story; it's never about him showing off. He always prioritizes my vision and will go out of his way to get the shots I need. Beyond that, he is extraordinarily fast, which lets me get so much done. Having someone who will literally jump out of a truck to grab the last bit of sunset is invaluable. That's why I keep coming back to him.

Varese: I'd do that for any director, and it doesn't matter to me if they're a man or a woman. The person in the chair is the storyteller. With Patricia, there's an enormous amount of trust, understanding and love that naturally carries into the work. That doesn't mean I work harder for her, it just means we're always talking about the movie — even on Sundays. What makes working with her special is the freedom; I can say what I think without overanalyzing whether or not I should say it. If she disagrees, she just says, 'No, you're wrong,' and that's that. With other directors, I might second-guess myself, but with Patricia, I know I can be completely honest.

Riggen: It wasn't necessarily like that in the beginning. We bumped heads a lot early on. But over time, we figured it out. Now, we know each other professionally inside and out.

Varese: The best collaborations evolve over time. Look at Rodrigo Prieto [ASC, AMC] and the last three films he's done with Scorsese. There's a sensitivity that grows, a shared language that develops the more you work together.

Patricia, would you automatically choose Checco for a feature, or does it have to be the right project for both of you?

Riggen: Checco is always the right choice for me because we share similar taste, because he's fast, and because for me, storytelling comes first. If the audience doesn't connect with the characters, they won't care how beautiful the cinematography is. That's why I prioritize storytelling, and I know Checco does, too.

Varese: There's a word in Spanish, *cariño*,

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Previous spread: U.S. President Danielle Sutton (Viola Davis) fends for survival amid a terrorist takeover of the G20 summit in Cape Town, South Africa. Above: The president's daughter, Serena (Marsai Martin), and son, Demetrius (Christopher Farrar) take cover. Below: Terrorist leader Rutledge (Antony Starr) addresses the world's heads of state on the summit floor.

> "There's a word in Spanish, *cariño*, which means 'care.' That's what it comes down to. I care about the project as much as Patricia does. That's not unique to us, but it's fundamental in our case. We're always fully immersed in the project."

which means 'care.' That's what it comes down to. I care about the project as much as Patricia does. That's not unique to us, but it's fundamental in our case. We're always fully immersed in the project. We're like Zorro wrapped in his cape riding into battle. It's that kind of passion and commitment.

Riggen: This job demands everything from you. It takes all your energy. You want to be with people who are just as driven as you and chasing the same goal of excellence.

Do you try to create a kind of family environment with your crews and work with the same people repeatedly?

Riggen: I'd love to build a

G20
SOUTH AFRICA
G20
SOUTH AFRICA

family of collaborators and keep bringing the same amazing people onto projects, but it's not always possible. People get busy, and with tax incentives and location-based production, we're often required to hire locally. With Checco, because of our relationship, I can give him a heads-up when a movie is coming up so he can clear his schedule … or risk divorce! And we do our best to bring our core cinematography team whenever possible. For instance, we have brought Steadicam operator Joseph Arena onto several projects, and we also try to bring in [B-camera operator] Josh Turner and a few others whenever we can.

Tell us how *G20* came together.

Riggen: I read the script during the pandemic, and then I pitched my ideas and vision to producers Andrew Lazar, Viola Davis and Julius Tennon, and they chose me to direct. Then it became a [SAG-AFTRA] 'strike movie,' and we had to stop after three weeks of shooting. We shut down for four months, and when production resumed, it wasn't as simple as picking up where we left off. We essentially had to pre-produce the film all over again.

What are the first steps you take together when you're collaborating?

Varese: I start by reading the script several times, and then Patricia and I talk about it extensively. How does she feel about the story? What are the key elements? From there, we begin research, whether that's reading books, looking at photographs or watching films that might inform our visual approach. Then there's location scouting. This is where we always have to convince the producers that the DP needs to

Director Patricia Riggen (in white jacket), Checco Varese, ASC (directly behind her) and A-camera/Steadicam operator Joseph Arena (at camera).

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Riggen, Starr and the crew (below) prepare to shoot a scene in which Sutton and Rutledge engage in a rooftop showdown.

be on the director's scout. It's more efficient. If I'm there from the start, we can choose locations that make sense for both storytelling and cinematography. The financial people don't always see the value in this upfront, but in the long run, it saves time and money.

And you're making those decisions together.

Riggen: Absolutely. I love having the cinematographer join the scouts. It makes total sense because they see things from a completely different perspective than I do. I'm thinking about the story first. Can I stage the scene here? Does it work narratively? The cinematographer asks, how does it look aesthetically? Where is the light coming from? How will we shoot here?

Varese: We began *G20* by watching a lot of classic action movies and analyzing them, asking ourselves, 'What do I like about this? What makes me care about the characters?' We weren't looking to copy anything, but rather to absorb references and inspiration. Patricia's research was very grounded in realism; she looked at news footage, paintings and even African music and artists. All of that was shared with the production designers [Nigel Phelps and Sebastian Krawinkel] and set decorators Tracy Perkins and Birrie Le Roux. We do a lot of separate research, but then we bring it together. And that makes things easier in meetings. I already know where Patricia stands because we've built a shared understanding of the project's vision.

Riggen: With *G20*, realism was especially important. The G20 is a global summit that happens every year. Research was critical. I studied how different countries host their G20 summits, looking at the security protocols and the overall logistics of the event.

Varese: That's where Patricia is so strong: She always insists on a foundation of realism. Once your world is believable, then you can take some cinematic liberties. The audience will buy into the idea that our characters can jump off a building because everything else feels true to life. In the '80s, I was a news cameraman in the White House press corps. I covered the White House, flew on Air Force One and Air Force Two, attended international summits and major diplomatic events. So, sometimes I'd whisper little things in Patricia's ear, like, 'That extra holding the camera? That's not how a real journalist would do it.' Even details like how still photographers fight for position, how they use their elbows to block each other out. That's a small detail, but it adds authenticity.

Riggen: Checco's background as a news cameraman gives him a perspective that's incredibly valuable. On this film, that knowledge helped shape not just the cinematography, but also how we portrayed journalists, politicians and even military operations.

Can you share another example of how your collaboration plays out on set?

Varese: Patricia can elaborate, but sometimes we'd finish a take, and she'd look at me with that smile of hers, and I'd know exactly what it meant. I'd run over to the camera operator and say, 'Sorry, mate, do you mind…?' and I'd take the camera and do the shot — to enhance it, to really land the moment. I operate a lot. I can't help it.

Riggen: Checco is an intuitive operator. He knows exactly where to land the camera in a way that captures emotion and poetry. When you're a war cameraman, you have to catch the action as it happens, and that instinct carries over into his cinematography. I adore Joseph Arena — he's incredible — but whenever I can, I get Checco to do some key shots because they have this raw, organic energy. I'd have him

> "We know our boundaries, which allows us to be creative, debate ideas, and push each other."

Tech Specs: 2:39.1
Cameras | Sony FX3, FX6, RXO
Lenses | Leica prime, Leitz, Angénieux prime

Sutton braves the crisis alongside agent Manny Ruiz (Ramón Rodriguez), IMF head Elena Romano (Sabrina Impacciatore) and U.K. Prime Minister Oliver Everett (Douglas Hodge).

operate the entire movie, but on big productions like this, it's just not possible.

Are there challenges specific to your collaboration?

Riggen: Filmmaking is like a family trade, kind of like the circus. You see families passing it down — fathers to sons, mothers to daughters, siblings working together. And sometimes that means people fight. But Checco and I have never had a fight on any of our movies. That's because, even though we're a couple, he completely respects the dynamic on set. He knows that he's the cinematographer and I'm the director. At the end of the day, it's my decision. That's why our working relationship is so good. I don't interfere in his job, and he doesn't interfere in mine. We know our boundaries, which allows us to be creative, debate ideas, and push each other. And no matter what happens on set, the moment we leave, we don't carry it home with us. We've figured out how to keep those two worlds separate.

How did your collaboration extend into postproduction on this film?

Varese: The post was done at Company 3 in Los Angeles. [ASC associate member] Stefan Sonnenfeld was the lead colorist, with Cody Baker handling the day-to-day work. Stefan established the overall look, and then I worked closely with Cody to fine-tune everything. I did an initial pass, balancing color and contrast and ensuring the beauty and warmth of Africa came through. Then Patricia came in, and for a week, eight hours a day, she refined every detail. She applies the same level of precision to the grade as she does to the performances. She's a genius when it comes to blocking; she can take a scene that might require 17 shots and condense it into a beautiful master with just three additional setups. I don't know where that instinct comes from, but it's completely natural for her.

How does your personal relationship help you navigate the pressures of a film set?

Riggen: I feel incredibly lucky to have someone on set who cares about me and understands me, who knows what I'm going through and, in his own way, supports me behind the scenes. Directors face a million challenges every day, and it's just wonderful to have someone you trust by your side.

Varese: And if something's wrong — say, the set isn't ready, and I know we can't start with the wide shot — we don't have to go through a whole back-and-forth of explanations. I just tell Patricia, 'We're not ready. We need to start with something else,' and she trusts me. With anyone else, I'd have to justify it, and suddenly I'm defending myself instead of solving the problem. And if I'm in trouble, I can ask for five more minutes, and she'll just rehearse again.

Riggen: I think Checco is a very special kind of person: He's powerful and confident but never oversteps. He never undermines me or tries to take control. In this industry, a young female director standing on set can sometimes feel small, especially in a room full of more experienced crew members. But Checco lifts me up. He supports me in the best possible way. But it's not because we're married. It's just who he is.

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Snow White for a New Audience

Mandy Walker, ASC, ACS and her team help director Marc Webb create a modern, live-action version of the animated Disney classic.

By Elle Schneider

Walt Disney made cinema history in 1937 with the release of *Snow White and the Seven Dwarfs* (*AC* Feb. 1938), his company's first feature-length film, and the first animated film created using painted cels. Disney was awarded an Academy Honorary Award for the innovations of his pioneering achievement, which remains the highest-grossing animated film of all time when adjusted for inflation.

More than 80 years later, Mandy Walker, ASC, ACS embraced the opportunity to take inspiration from this historic blueprint while shaping a look for Disney's new live-action *Snow White,* which offers an updated take on the acclaimed story with a cast that includes Rachel Zegler as the heroine and Gal Gadot as the Evil Queen. "When you look at the original movie, it still holds up as stunning and beautiful," Walker says. "The background animation is incredibly detailed, colorful and textured; it has a very painterly feel."

Walker, who previously shot Disney's live-action adaptation of *Mulan* (*AC* Sept. '20), directed by Niki Caro, is no stranger to reinterpreting stories, whether those narratives are drawn from real life, such as *Hidden Figures* (*AC* Jan. '17), *Shattered Glass* and *Elvis* (*AC* Dec. '22), or inspired by fairy tales, like *Red Riding Hood*. On *Snow White*, Walker says, "we were all really conscious that we were making a fairy tale — from an iconic, eponymous movie that everybody has seen — and we wanted to be true to that legacy."

This creative heritage determined how director Marc Webb and the rest of the filmmaking team approached every aspect of the story, starting with the look. "The animated version was the main reference for me for the visual language of the movie," Walker says. The original film became a kind of previs, providing the jumping-off point for Webb and the rest of his creative collaborators. The cinematographer says the goal was to keep the story tonally similar to the animated classic while "representing it in a modern sense."

A Light Spirit Confronts Dark Intentions

When meeting with a director, Walker dives in story-first, asking about the emotional import of each scene and how the audience should feel in response. She wants to know what the characters are going through during key moments so she can use those emotions as a launching point for the visuals. On *Snow White*, Walker met with members of the art, costume, makeup, and visual-effects departments, "working together to decide on the visual language of the world, and then I would go

off and work out technically how to achieve what we'd discussed." The team further refined their choices by shooting meticulous screen tests, comparing fabrics, window and wall choices, and other set and costume elements to avoid "a chaos of color or texture."

Light, shadow, warmth and color all helped to translate the larger-than-life emotions of the original animated film for a live-action setting, creating a look that is both magical and hyper-real. Walker sought to craft an enticing, bright feel for the lighter moments in *Snow White*, drawing the audience into the titular character's wonder at her fantastic, newfound surroundings. "When Snow White goes to the cottage, it's very warm and glowing," she says. "The emotions she experiences there are very important, because she's just come from the scary forest" into a world that's safe and inviting. Later, the progression is darker as Snow White faces more danger. "Emotionally, after she eats the apple, that light goes from the movie," says Walker. "It becomes somber and cool and it loses that glow."

Walker notes that early in the film, when Snow White is still in the castle under the oversight of cinema's most famous evil stepmother, she sings a new song in the Disney canon, "Waiting on a Wish," a somber number about the hope that she has for the future. After a glimpse into the idyllic, vibrant and colorful life that prevailed in the realm before the Evil Queen's reign, the costumes in this sequence have a palette that leans more toward "grays and beige, as all the beautiful color at the beginning of the film [drains] from the village," says Walker. "We also chose a soft overcast feel of cooler blue/cyan color in the lighting." Since Snow White sees the brighter side of life, however, "there's still kind of a vibrancy in her outlook."

Using visual language to pivot from warm, cozy scenes filled with light and music to the more sinister elements of the plot — such as Snow White's harrowing journey through the scary forest and various encounters with the Evil Queen — helps keep the audience emotionally invested in a story that's been familiar onscreen for generations, and whose roots go back even further, to the Brothers Grimm story first published in 1812. The look of the dark, foreboding forest of Disney's animated *Snow White* recalls the chilling ambience of German Expressionist classics like *The Cabinet of Dr. Caligari* and *Nosferatu: A Symphony of Horror*, generating a surreal, evocative sense of fear that the new *Snow White* carries forward more than 100 years later.

Opposite: Snow White (Rachel Zegler) communes with her newfound friends in their cheery cottage. This page, top: The Evil Queen (Gal Gadot) summons dark magic. Above: Mandy Walker, ASC, ACS wields her viewfinder as director Marc Webb (second from right) observes.

However, finding the perfect visual balance between "scary" and "terrifying" is a fine line when making a movie intended primarily for children. "I always remained aware that this was a children's movie, and that we shouldn't make it too frightening," says Walker, who observed how the original film succeeded in walking that tightrope. "So, we went very colorful in a dramatic way. Our version can be dark and scary, but it's very colorful and vibrant, not black, sooty and dark. We used colors such as red and blue to create a fantastical and magical environment that was not 'horror movie' in tone."

Creating a "Storybook" Feeling

Walker knew from the start she wanted to incorporate a storybook mood into her cinematography, both in color and in camera, so she paid a visit to ASC associate member and Panavision senior vice president of optical engineering and lens strategy, Dan Sasaki, at the company's headquarters in Woodland Hills, California. "Early in my prep I went to talk to Dan about lenses and cameras, and to get some ideas from him. I talk to him as a technician, but also as an artist."

UNIT STILLS BY GILES KEYTE, SMPSP. ADDITIONAL PHOTOS BY MANDY WALKER, ASC, ACS. ALL IMAGES COURTESY OF WALT DISNEY STUDIOS.

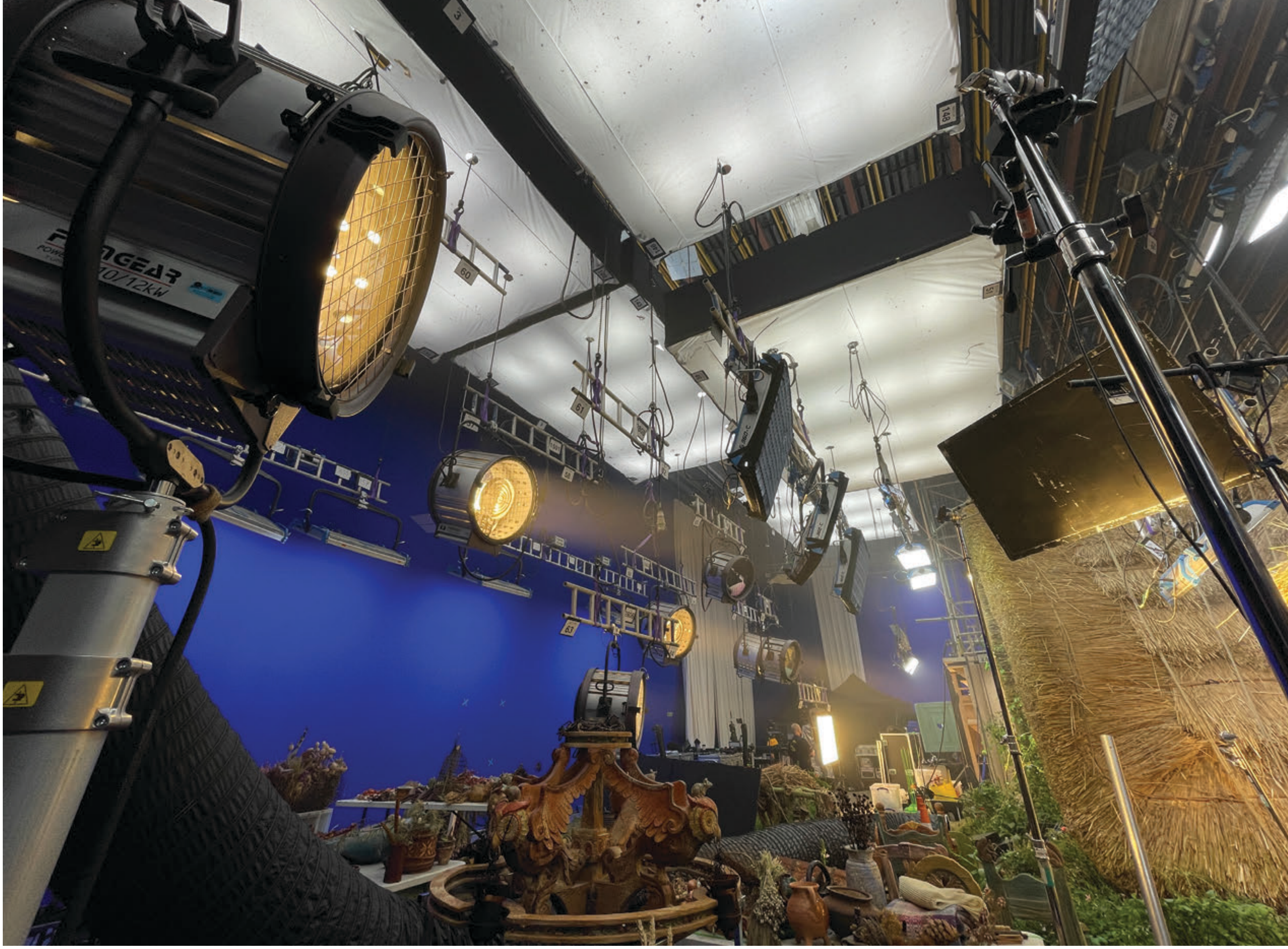
Two views of the cottage set built on a soundstage, where an array of lighting units allowed the filmmakers to adjust looks for day or night scenes.

The two discussed different lens options and preferred characteristics that would help capture the magical feel Walker was aiming for. "I want the images to glow," she told Sasaki, expressing her desire to create an otherworldly, halcyon look without it feeling overly hazy. "So, Dan put that quality into the lenses he made with the team at Panavision. They picked different types of glass and coatings. In the film, when you see candles or strong sunlight, there's a glow, but without diffusing the whole image."

Based on Walker's choices, Sasaki started with Panavision's Primo Anamorphic series and, through customizations including reducing minimum-close-focus distance, he crafted a new, smaller series dubbed Primo Anamorphic compact primes. Walker asserts that the original Primo Anamorphics were the right starting point, "because to me they felt very vintage. They're sharp, but they also lend a smoothness to skin and produce a drop-off on the edges in focus and exposure, which creates a frame around the image — something we enhanced later in post."

During those post sessions, Walker employed vignettes over many shots to focus the viewer's attention and draw their eye. "The framing is very conscious," she says.

The cinematographer opted to shoot on the Arri Alexa LF and Mini LF, taking advantage of the camera's full-frame sensor, and had her lenses expanded to maximize the image size while making the most of their customized characteristics. "Some of the expanded lenses do vignette



Clockwise, from top: Filmgear Tungsten Fresnels, Creamsource Vortex LED units and PAR cans were part of the show's lighting arsenal.

in exposure — for instance, the 40mm and 30mm — and for some longer-lens shots I used Primo anamorphic zooms, which also vignette."

Beyond creating vignettes and a fairy-tale feel with her lenses, Walker used other formal elements, including lighting and composition, to differentiate Snow White from the Evil Queen — moving from a glowing warmth to lighting and atmosphere that "was much more austere and symmetrical," even going so far as to cut out the sun at times. She notes, "We had some backlot sets at Pinewood where I had six construction cranes flying 30-by-30 gray Half Grid Cloth to cut the sun for the scenes that were meant to be overcast."

Although the film features an abundance of dynamic camera movement for big musical sequences and action shots (see sidebar, page 29), Walker observes that it was equally important to calibrate how she moved or placed the camera for closer, more emotional beats in the story. For example, as *Snow White* begins to truly know and relate to the characters she meets, Walker was "very cognizant of recognizing those moments when you want to see, in their eyes, when they're connecting with each other in a very subtle way. Those moments can be very

Animals quickly become Snow White's allies in the glade.

impactful on a big screen. For example, when Snow White meets Jonathan [Andrew Burnap] at the town gate, we wanted to make sure you would feel the connection between them — and, in their looks at each other, the early signs of emotional attraction."

Shooting Practical Locations vs. Sets

While much of *Snow White* was shot on stages or on the backlot, some practical locations were used, including for a number of forest scenes, which presented a complex task in terms of matching the controlled reality of the stage. Providing an example, Walker notes that "after leaving the cottage, Snow White runs away with the bandits into the forest."

Shooting that forest practically had real benefits, but it also had drawbacks. "In the forest where we shot the battle with the soldiers, our riggers had to string 20-by-20 and 30-by-30 gray Grid Cloth between trees at high points around 30 to 50 feet; this rigging was placed beforehand so we wouldn't have sun moving on our actors. Then we had runs of white Half Grid Cloth up to 90 feet with 18K PARs behind them on the ground to provide a soft key light — because, in a green forest like that, the toplight is green and not complementary. We also strung rigs in the trees with Vulcan lights to add backlight. The important thing for me was to work out how to blend day scenes shot in forests built on stage with the real forest environment."

She adds, "It's fine to have light constantly changing and to be toplit if you're doing a different kind of movie that's more realistic. But for a fairy tale like this film, the light had to complement the scenes we'd done on stage, in a controlled environment."

Walker worked closely with gaffer David Smith and his rigging team in a build that took approximately three weeks to tame the environment. "In the U.K., the lighting team did all of these rigs," she says. "What we did to create those environments was quite a feat, logistically."

This outdoor setup was a far cry from what was happening on stages at Pinewood. Walker prefers to light for 360 degrees on a film like *Snow White*, using a dimmer board to facilitate lighting changes directly in camera and adjust backlights for sun wherever needed so turnarounds

Visual effects and traditional lighting techniques lend malevolent ambience to castle scenes featuring the vain, power-hungry Queen.

can happen more quickly. "I like to give the director as much time on set as they need with the actors and to work out the shots they want to do," says Walker, "rather than waiting for me on the day." Some of these setups could be complex, with one afternoon scene on a glade set calling for 1,000 PAR cans, which had to be flown in from all over the U.K. "For some scenes when the camera spun around, we chased the backlight, dimming up and down as we saw the different backgrounds."

For setbound scenes in Snow White's haven, the cottage, "I wanted you to feel that golden glow from outside," Walker says. To get the look she sought, the crew set up 20K MoleBeams outside every window. "It was really quite a big setup to push light through those tiny windows."

Communication and VFX

Walker says she doesn't talk all that much with actors during a shoot. "They have the hardest job on set — being in front of the camera — so I just try to create a calm environment," she says. "A key reason I try to pre-light the sets as much as I can is so they're not waiting hours for me to relight a turnaround."

Walker says she communicates more frequently with a show's visual-effects team. "When I first started shooting films 25 years ago, the movie might have just a couple of visual-effects shots, or VFX work that would happen at the end of the schedule, when I was not that involved. Now I'm very involved, and I really appreciate that my relationship with the VFX department has developed and evolved."

Her discussions with *Snow White*'s visual-effects supervisor, Max Wood, started right when prep began "because their plans for the CG characters and CG environments, and the combination of live-action and computer-generated characters, were playing out really early on."

Walker was deeply involved with the mocap work on *Snow White*, which included laying out digital camera moves that would later be integrated with the previously captured live-action sequences done with the actors. "We also would be working in a completely CG environment, plotting and moving the camera through the 3D CG environments," says Walker, who used dollies, Steadicam, handheld cameras and small

Snow White finds a suitor in the charming bandit Jonathan (Andrew Burnap) but an envy-driven enemy in the Queen.

cranes in a virtual-camera shoot at Wonderwall Studios in L.A. just as she would on set, "so that the feeling of the coverage would be the same."

During postproduction, Walker was kept in the loop as virtual sets were lit and integrated into what she'd captured physically on set. "It was a great experience, and I really appreciated being involved in that process," she says. "I was able to contribute to the lighting that was being created in Unreal Engine and RenderMan, and it's a new world to be using those tools as part of my job. But it's exciting to me, and on each film I do, that workflow becomes more and more integral to maintain the consistency of the visual language."

Crewing Up and Working With a Team

When selecting her camera operators, "I want somebody who's a team player," Walker says. "I want someone who's calm, artistic, and has an opinion — someone like Jason Ewart, my A-cam/Steadicam operator, who's a great collaborator."

Because the production shot in the U.K., Walker worked with a crew she was initially unfamiliar with, but she made it her priority to create a working environment "in which everyone could feel excited to be there and bring new ideas to the table, rather than repeating whatever they'd done on their previous films."

"My job requires me to be an artist and a technician, but also a general," she says. "When you're working on a big movie, you need to be incredibly organized, you must be a great communicator and collaborator, and you also have to be able to deal with many people on multiple sets at once."

Offering a bit of wisdom to cinematographers who are eager to take on the challenge of shooting a studio tentpole picture, she advises that a director of photography should have very succinct plans, but be prepared to jump when plans change from the initial strategies or conceptions, and to field a barrage of questions that require significant brainpower. "On a bigger film, you have to step up and understand that you're going to get asked a thousand questions a day," she says, "and you're going to

Remote heads were among the tools used to create dynamic movement throughout production.

Dynamic Camera Movement for Musical Interludes and Action

Planning for musical sequences requires a lot of homework to nail the camera movement that helps a story shift seamlessly from talking to singing, transporting the audience visually from one version of reality to another. "A really important part of my job is planning, and that's why I try to use preproduction really well," says cinematographer Mandy Walker, ASC, ACS. "I'll go and talk to the director about whether we need to fly the camera at certain moments, or if there's a tricky move that we're thinking might work for a musical number."

Walker is no stranger to movie musicals, and she's demonstrated top-flight skill in the discipline, earning an Academy Award nomination for her work on *Elvis*, directed by her longtime collaborator Baz Luhrmann. She knows when to use the camera to complement music, and how the right movement can enhance action happening onscreen. "It's more rhythmic, and the camera is always moving and dancing with the performers. In that sense, I was very aware of how we were trying to create that visual flow and the different feelings it produces for the audience."

When strategizing musical sequences, Walker starts by familiarizing herself with the songs, which were written and recorded far in advance of production. On *Snow White*, Walker and Webb visited with choreographer Mandy Moore during initial rehearsals and used tools like Chemical Wedding's Artemis digital viewfinder to plan shots. Later, on location, the filmmakers would finesse their ideas while taking the physical space into consideration. "You discover things like, 'Well, at this moment, we need to be rising up,' or 'We need to be spinning around,'" Walker says. "And then you think, 'How are we going to do that on this set?'"

For "Waiting on a Wish," she says, "we did a lot of swooping crane shots, soaring with her song and her words, so that she's singing this song out to the world as a force."

Camera movement is ever-present in *Snow White*, taking the audience on a thrill ride through moments of levity and danger, and Walker used every tool in her arsenal to keep the momentum going. On set, the gear included two Cinemoves Scorpio telescopic cranes (45' and 23') at all times, outfitted with Matrix 4-axis gimbals and Cinemove Cineflips remote heads that could swoop over the heads of the dancers; a Scorpio 10 was employed for tighter, more challenging locations, like a dungeon scene between the Huntsman (Ansu Kabia) and Jonathan, a new character created for this version of the story. "Having those cranes gives you a kind of maximum movement," she says, "and we sometimes put them on a track for longer moves."

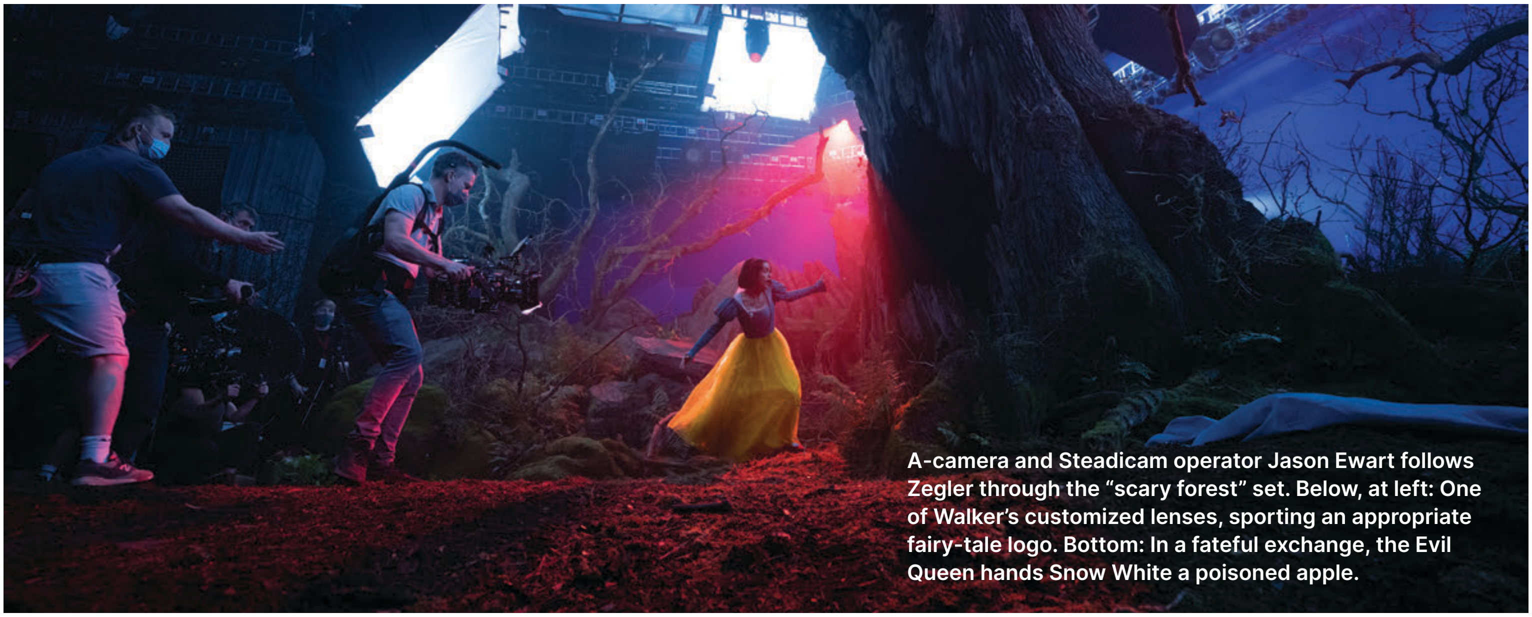
Shooting both inside and outside the soundstage, Walker also employed a cable-cam system on the exterior backlot (a four-point wire rig with a Libra stabilized head from Camera Revolution); a U-Crane Dynamic Extreme Can-Am Maverick, from Bickers Action, for tracking shots involving horses; a Dactylcam system for shots moving over bushes in the forest; Steadicam; Fisher 10 and PeeWee dollies; sliders; and even handheld cameras at times. "We had two cameras running all the time," she says, noting that musical numbers warranted five. Jason Ewart served as the show's A-cam and Steadicam operator, with Natasha Mullan on B cam and 1st AC Olly Tellett pulling focus.

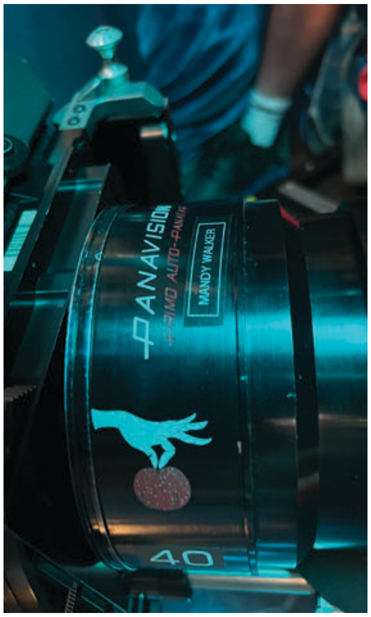
"Sometimes we went with handheld or Steadicam when the camera had to dance with the characters," Walker notes, "and there are a couple of fight sequences where we went handheld to help the audience experience the chaos within the action. We planned our camera movement according to what was called for dramatically, but also according to what we felt was emotionally right for covering those sequences."

The cinematographer adds that the camera didn't live on the cranes just for efficiency's sake, though it was helpful at times — like in situations where the filmmakers had to be careful on sets with intricately placed elements that included tight sets over water and patches of grass. However, Walker maintains that ultimately, "for me, camera movement is about knowing the emotions of the scene, knowing when those tools can be handy, and planning logistically for when they'll be needed."

— Elle Schneider

Tech Specs: 2.39:1
Cameras | Arri Alexa LF, Mini LF
Lenses | Panavision Primo Anamorphic, Primo Anamorphic compact, Primo Anamorphic zoom


A-camera and Steadicam operator Jason Ewart follows Zegler through the "scary forest" set. Below, at left: One of Walker's customized lenses, sporting an appropriate fairy-tale logo. Bottom: In a fateful exchange, the Evil Queen hands Snow White a poisoned apple.



have to carry everything in your head."

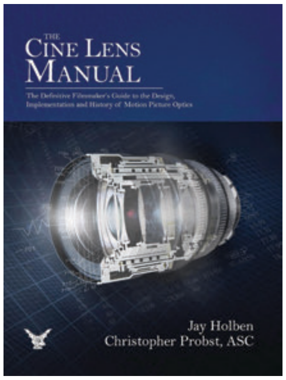
Her other keys to succeeding on a long film shoot include looking after your mental health, time management, showing kindness to others, and demonstrating respect for the director, actors and fellow crewmembers. "If people are enjoying their job, enjoying their environment and working as a team, they will work at 110 percent."

Walker enjoys working on a variety of different films and genres, which allows her to engage in worldbuilding with directors and presents her with opportunities to tackle new challenges. "This is my second Disney movie, but it was a very different process than *Mulan*," she says. "*Snow White* took an approach closer to representing the images of the original animation. I'm always open to doing original creative ideas and varied genres of movies, but projects that involve creating a new version of a visual world are really interesting to me."

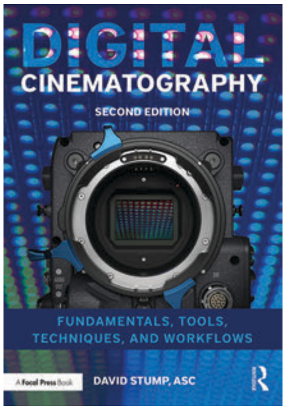
That said, she emphasizes that her ultimate goal is to help directors achieve their conception of a film. "I was very lucky that Marc Webb had a very strong vision for *Snow White*," she says, before also citing the work of costume designer Sandy Powell, production designer Kave Quinn, and hair and makeup supervisor Nadia Stacey. "What makes the job exciting is that we were all working together to achieve something special, and that there was a simpatico between us in terms of the artistry."

Walker says she drew inspiration from Snow White's ability to overcome the adversity of looming evil by maintaining hope through bad times. "I just think there's a good message in this film for an audience," she concludes. "I relate to the emotions of the story and its important themes, like bravery, friendship, honor, being true and kind. Things like that always influence my approach to the images, and I feel excited to help bring a classic film to a new audience."

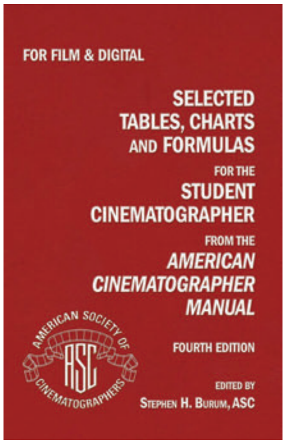
FOR THE CINEMATOGRAPHER'S PERMANENT REFERENCE LIBRARY


The Cine Lens Manual
The Definitive Filmmaker's Guide to the Design, Implementation and History of Motion Picture Optics
Jay Holben
Christopher Probst, ASC

THE CINE LENS MANUAL
Detailing 300 lens families, this uniquely comprehensive hardback reference was written by Jay Holben and Christopher Probst, ASC for all individuals with an interest in motion-picture optics — cinematographers, directors, visual-effects artists, camera assistants, animators, technical journalists, historians, students, instructors, rental-house technicians. Its 836 pages cover 140 years of cinema lens history, filled with 1,500 full-color illustrations including photographs, diagrams, and graphics.


DIGITAL CINEMATOGRAPHY
SECOND EDITION
FUNDAMENTALS, TOOLS, TECHNIQUES, AND WORKFLOWS
A Focal Press Book
DAVID STUMP, ASC

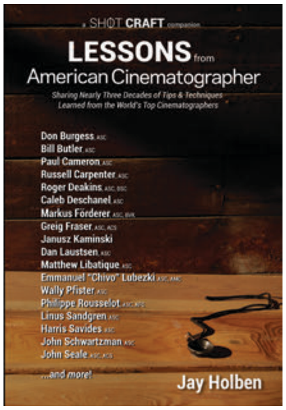
DIGITAL CINEMATOGRAPHY: FUNDAMENTALS, TOOLS, TECHNIQUES, AND WORKFLOWS
Today's successful cinematographer must be equal parts artist, technician, and businessperson. This book empowers the reader to correctly choose the appropriate camera and workflow for their project from today's incredibly varied options, as well as understand the ins and outs of implementing those options. Veteran ASC cinematographer David Stump, ASC has updated this second edition with the latest technology for cameras, lenses, and recorders, as well as included a new section on future cinematographic trends.


FOR FILM & DIGITAL
SELECTED TABLES, CHARTS AND FORMULAS
FOR THE STUDENT CINEMATOGRAPHER
FROM THE AMERICAN CINEMATOGRAPHER MANUAL
FOURTH EDITION
AMERICAN SOCIETY OF CINEMATOGRAPHERS
EDITED BY STEPHEN H. BURUM, ASC

SELECTED TABLES, CHARTS AND FORMULAS FOR THE STUDENT CINEMATOGRAPHER
This 154-page excerpt from the *American Cinematographer Manual* was designed for student filmmakers and updated to include key aspects of digital cinematography. Edited by Academy Award-nominated cinematographer Stephen H. Burum, ASC, it covers basic cinematographic principles and includes the actual tables, charts and formulas used by professional cinematographers. Other chapters from the *AC Manual* that are most relevant to student filmmakers are also included.

Our First 100 Years
presented by the members of the American Society of Cinematographers

OUR FIRST 100 YEARS
This album-size 204-page hardback book chronicles the history of the American Society of Cinematographers in celebration of the organization's centennial (1919-2019), with profiles on its 15 founders and many outstanding members who have photographed classic feature films, television shows and other motion-picture projects. Illustrated with hundreds of behind-the-scenes images — restored by Charlie Lieberman, ASC and printed in duotone for exceptional image quality — *Our First 100 Years* details the artistic influences, creative collaborations and technologies that helped shape the past century of motion-picture history.

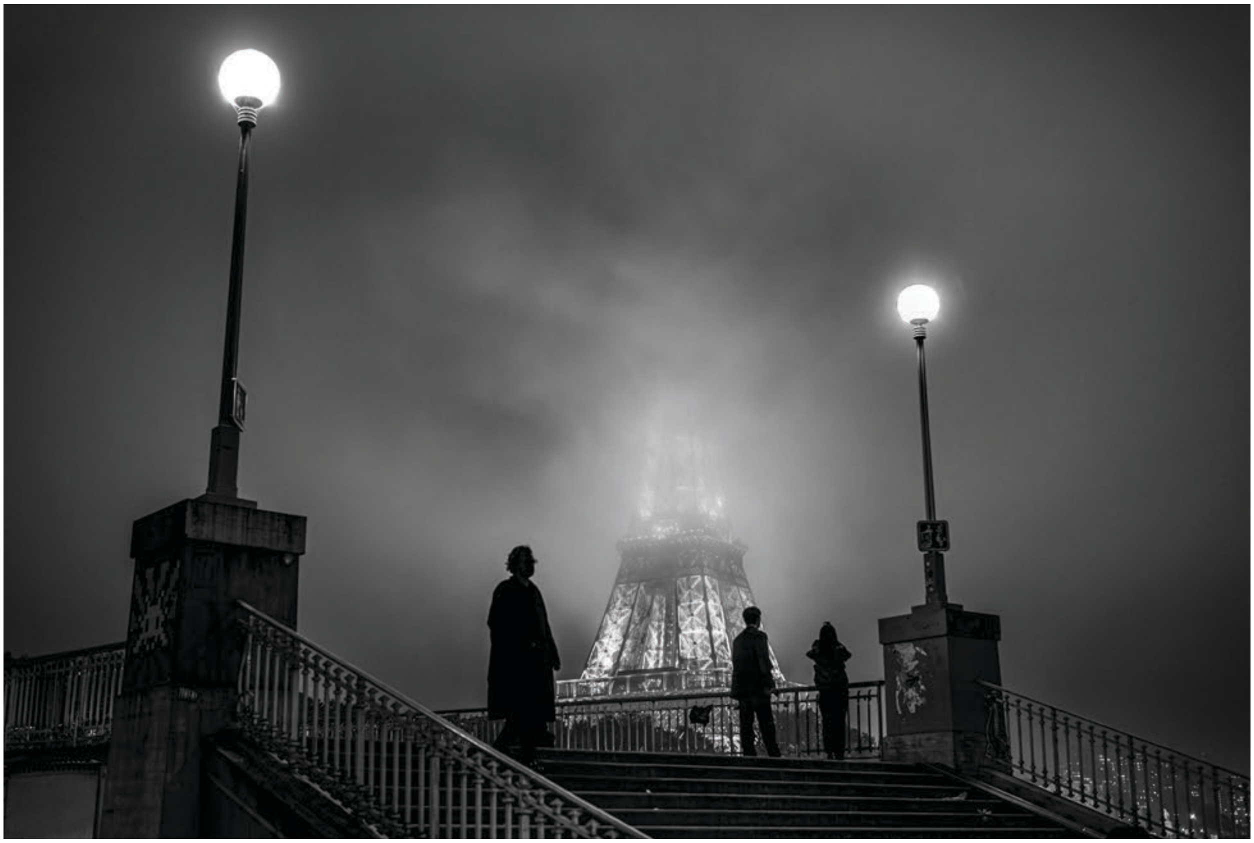

a SHOT CRAFT companion
LESSONS from American Cinematographer
Sharing Nearly Three Decades of Tips & Techniques Learned from the World's Top Cinematographers
Don Burgess
Bill Butler
Paul Cameron
Russell Carpenter
Roger Deakins
Caleb Deschanel
Markus Förderer
Greig Fraser
Janusz Kaminski
Dan Laustsen
Matthew Libatique
Emmanuel "Chivo" Lubezki
Wally Pfister
Philippe Rousselot
Linus Sandgren
Harris Savides
John Schwartzman
John Seale
...and more!
Jay Holben

LESSONS FROM *AMERICAN CINEMATOGRAPHER*
For nearly three decades, ASC associate member Jay Holben has been a contributor to *AC* and had the opportunity to sit down one-on-one with many of the world's top cinematographers. This book includes excerpts from more than 60 of his articles, highlighting the tips and techniques Holben learned from interview subjects including ASC members Don Burgess, Paul Cameron, Russell Carpenter, Jeff Cronenweth, Roger Deakins, Caleb Deschanel, Greig Fraser, Dan Lausten, Matthew Libatique, Emmanuel Lubezki, John Seale and Newton Thomas Sigel.

You'll find all these choices and more in the ASC Store
store.ascmag.com/collections/books-videos

ASC Stills Portfolio

Three collections of outstanding photography by Society members.



EIFFEL TOWER LIGHTING DESIGN ©PIERRE BIDEAU.

M. David Mullen, ASC
Disappearing Act • 2024
Nikon Z6 +
Nikkor Z 40mm *f*/2

Places

Since 2021, *AC*'s annual Stills Issue, now in its fifth edition, has showcased Society members' photographs in a forum that remains fluid and changing, as the works it curates and the artists who produce them remain fresh and ever-evolving. ASC Vice President and Photo Gallery Committee Chair Charlie Lieberman, who hands off each year's image submissions to *AC*'s editors to conduct their selection process, notes that "when this project began, *AC* started out with galleries of 'Places,' 'People' and 'Landscapes.' But last year, it suddenly came about that there was a new subject, 'Still Life.' And this year, 'People' became 'People and Faces' — because some of the faces in those photographs were non-human, or even inanimate. When we receive submissions, it often becomes apparent that new types of photographs should be collected, and viewed, together."

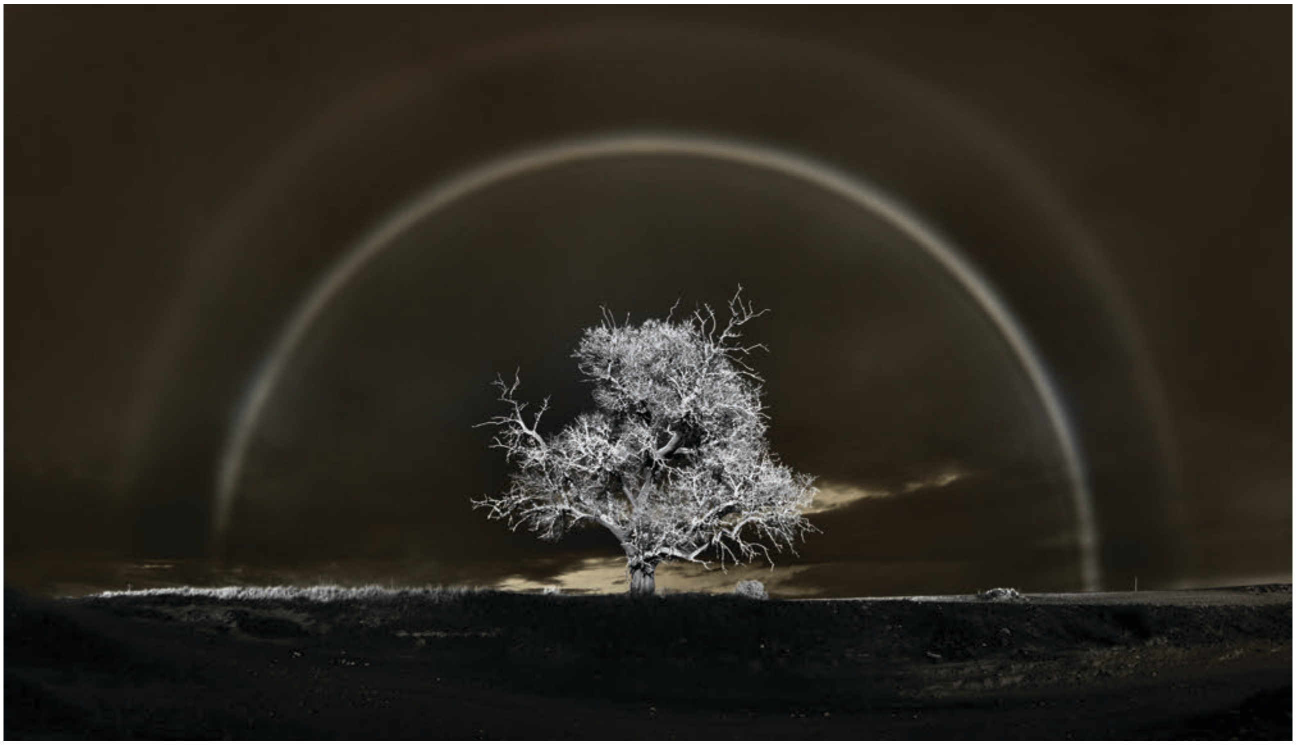
Yet, in gathering works for consideration, Lieberman has observed at least one kind of connective tissue between each of this issue's clearly defined categories. "The one thing that's eternal is that many of our members shoot pictures that contain a non-verbal story," he says. "My hope is that viewers can 'write' their own story based on the picture they're looking at, and that that story could be 'written' in a way that echoes what's there in the photograph."

This sense of participatory engagement reverberates through the "Places" collection that follows. Here, spaces familiar, foreign and liminal are opened to exploratory viewers — and, in some instances, echo cinematic worlds that film-lovers may have previously visited. "In these images' 'stories,' there may be a hallway, a road, a path, a view into or out from a window… anything that makes you wonder about who might move through that environment," Lieberman says. "That's what makes a photo ever more interesting: It allows you to imagine the movie playing out within the moment it captures."

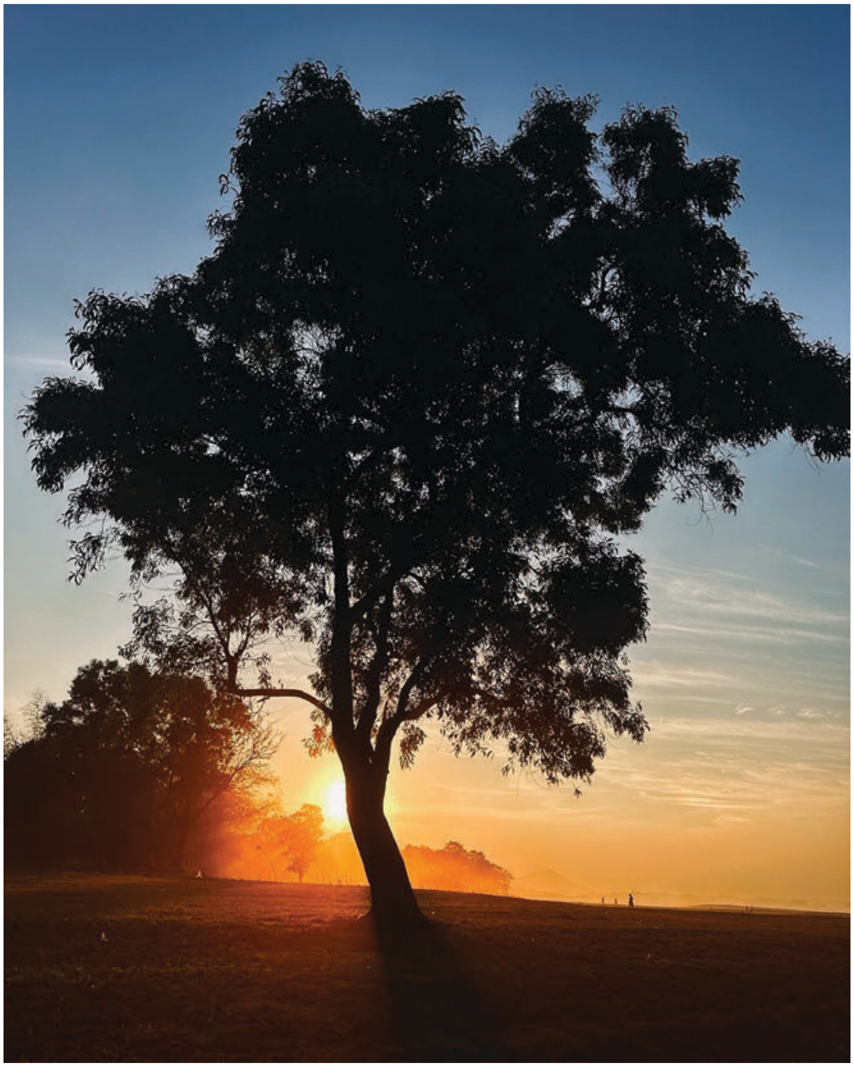
— *Max Weinstein*

Shana Hagan, ASC
Winter's First Light • Homer Glen, Illinois • 2024
iPhone 15 Pro

James Neihouse, ASC
Crossing Paths • 2023
Canon EOS 1D X Mark II + EF 800mm *f*/5.6

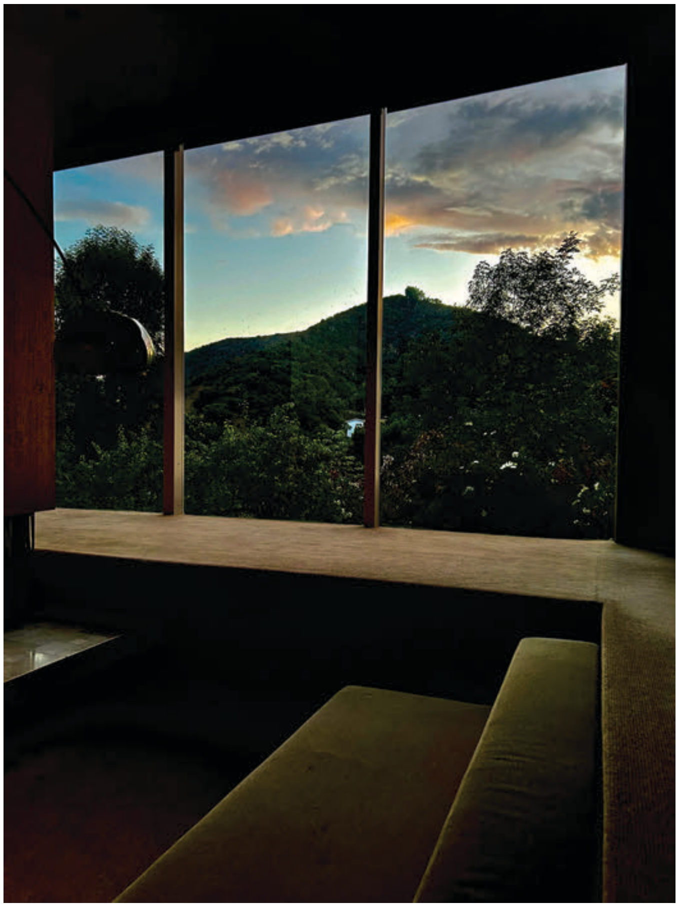


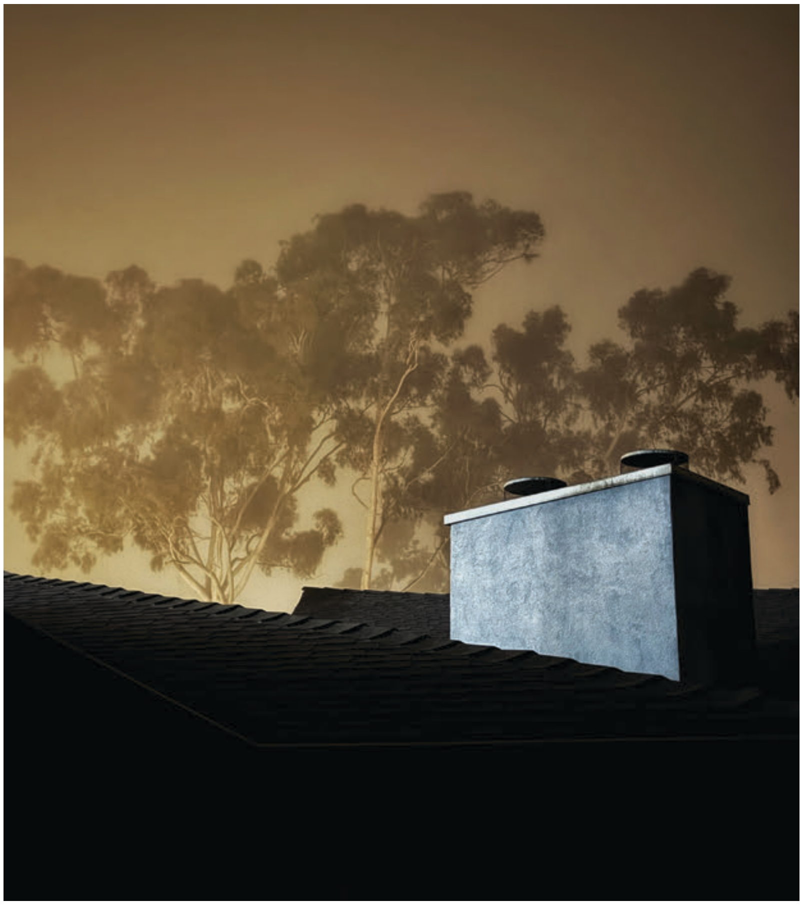
Antonio Calvache, ASC
Rainbow • Spain • 2017
Sony NEX-6 +
18-55mm *f*/3.5 (shot at 18mm *f*/8)
Infrared converted



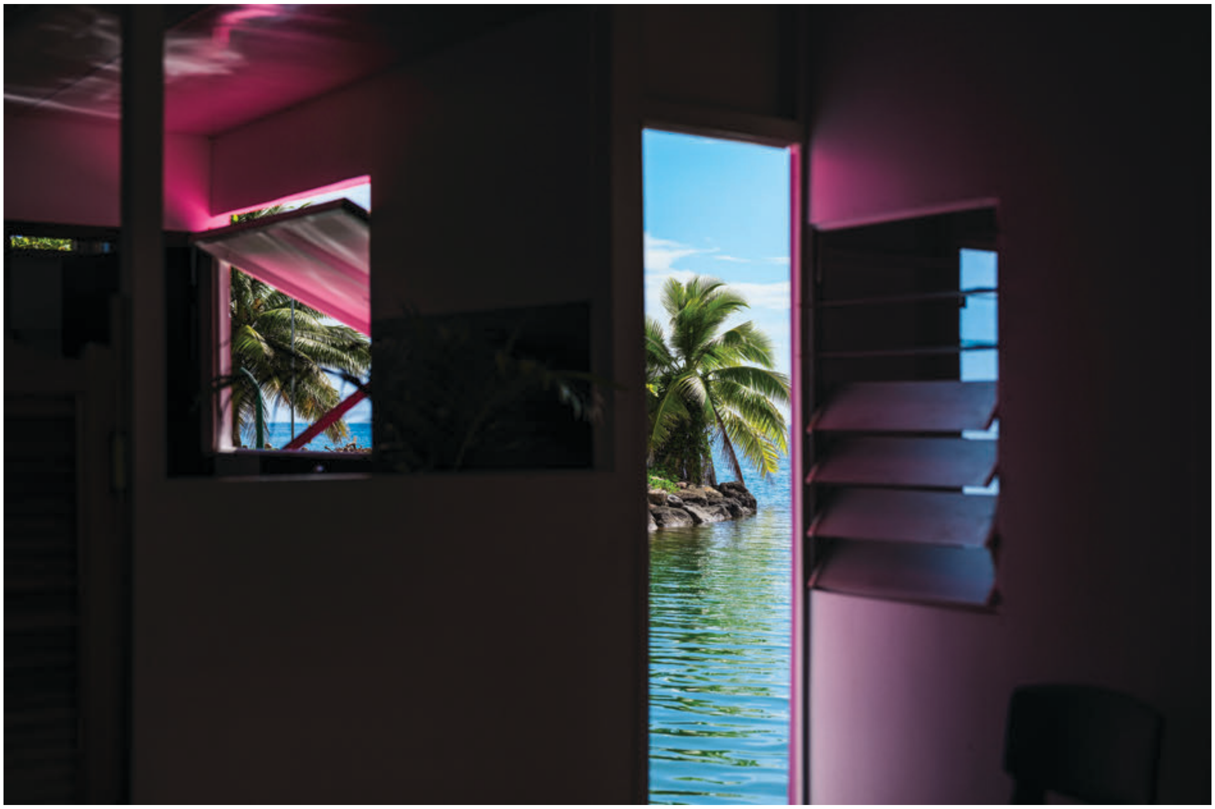
Ravi Varman, ASC, ISC
Every Soul Needs the Sun to Rise • 2023
iPhone 13 Pro

Peter Deming, ASC
Aprés Midi • 2023
iPhone 14

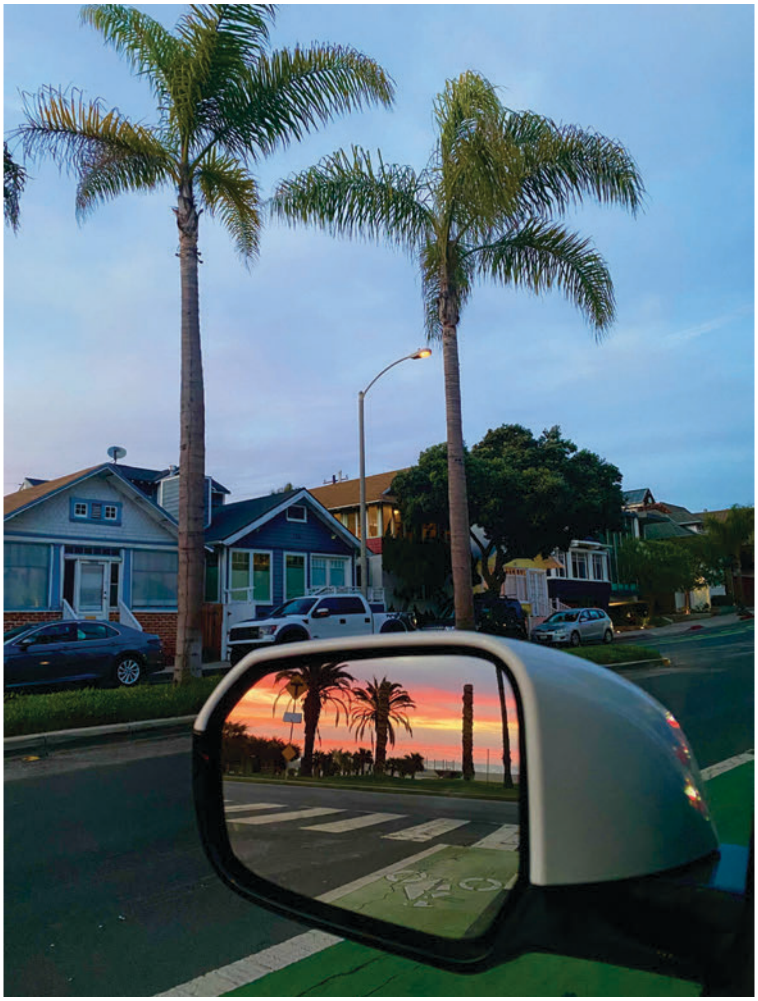




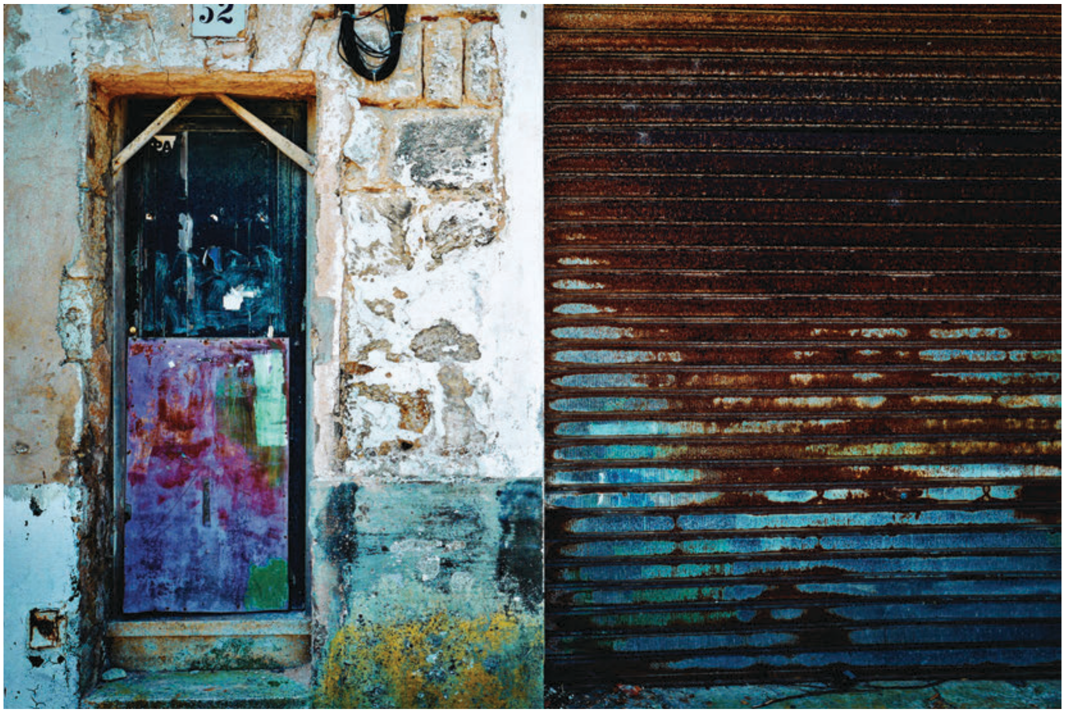
Peter Levy, ASC, ACS
Foggy Night • 2024
iPhone 15 Pro



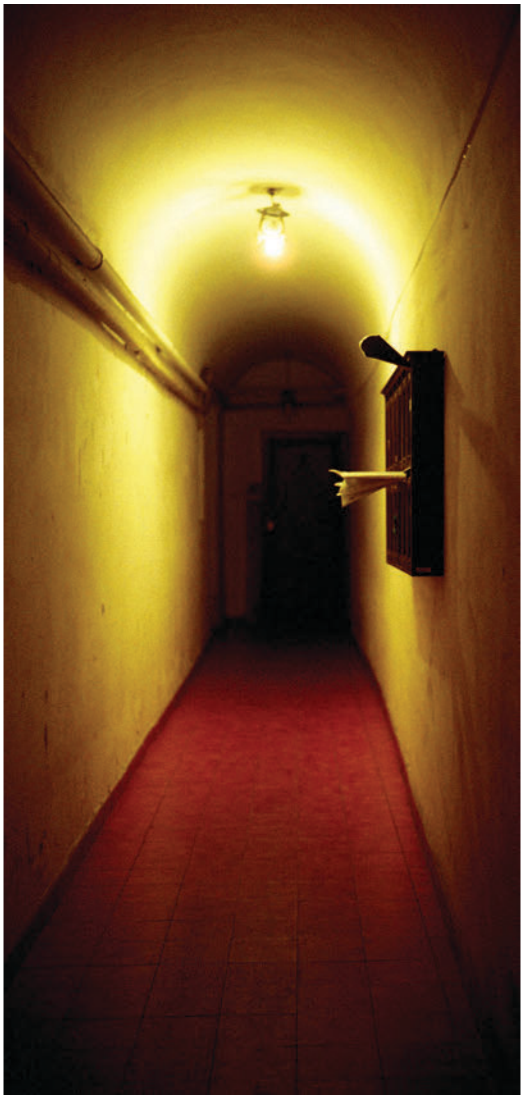
Gavin Kelly, ASC
Ra'iātea • 2024
FujiFilm GFX 100S + GF 55mm *f*/1.7



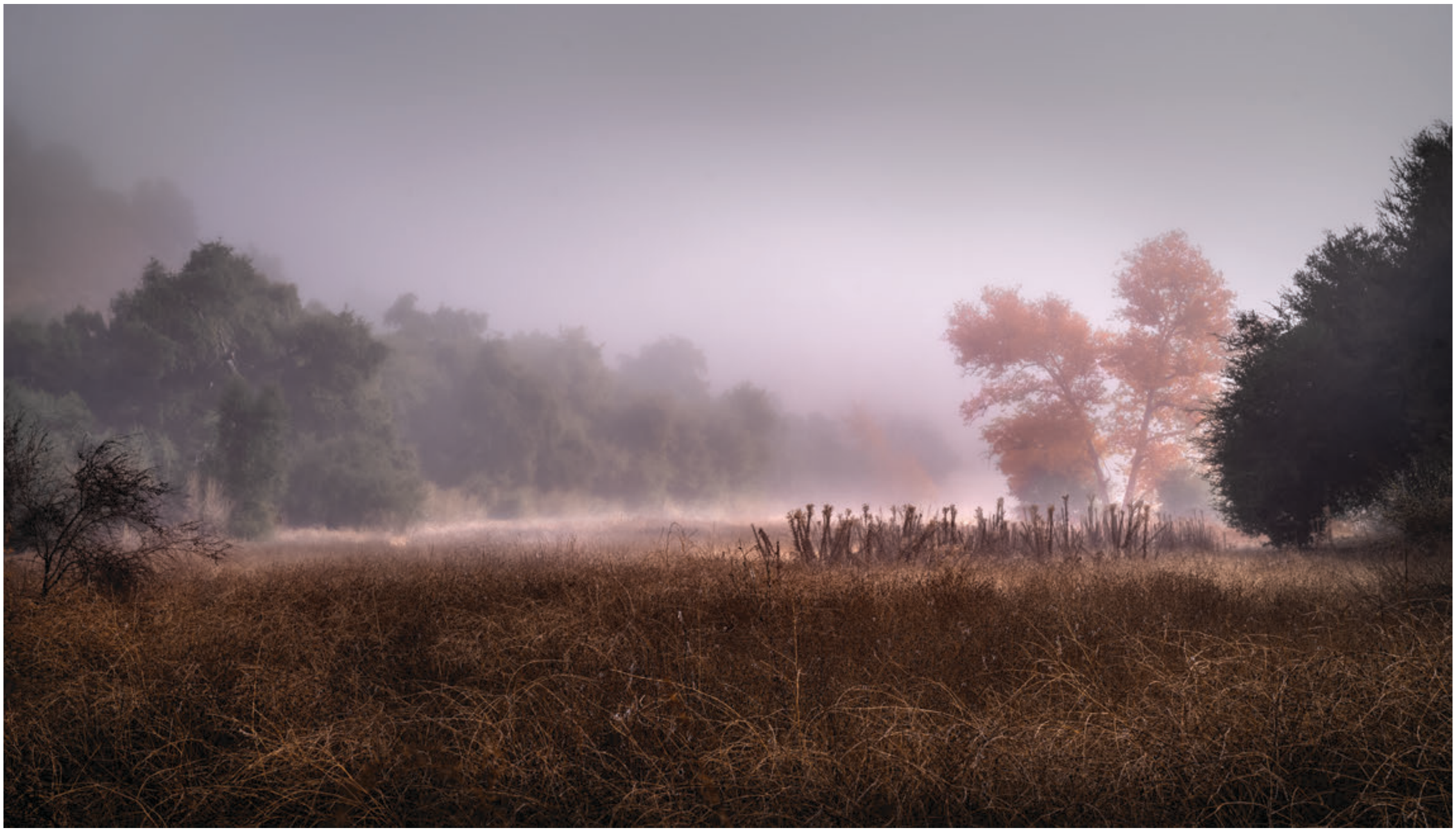
Nancy Schreiber, ASC
Dusk's Magical Embrace • 2022
iPhone 11 Pro



Eben Bolter, ASC, BSC
Menorca • 2017
Leica Q + 28mm Summilux

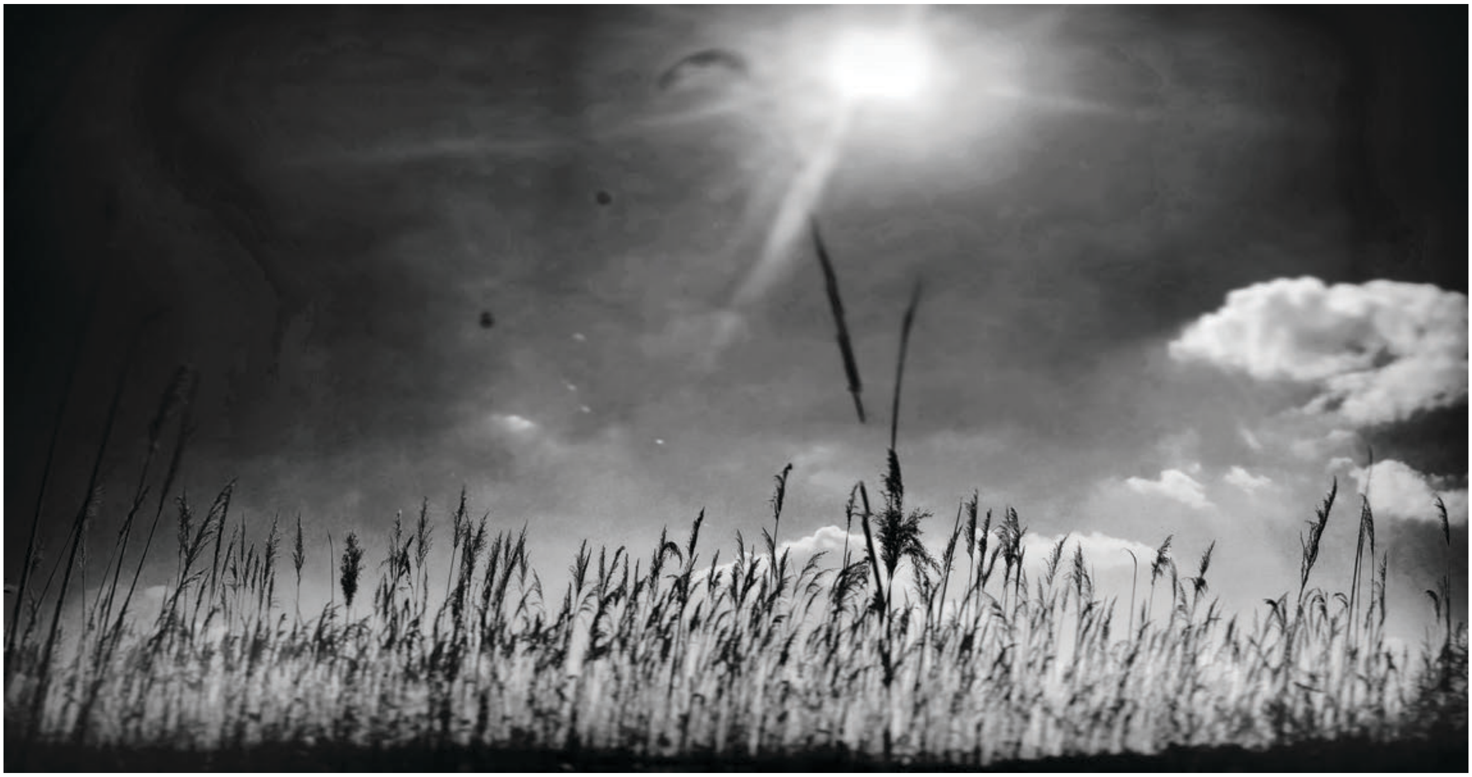


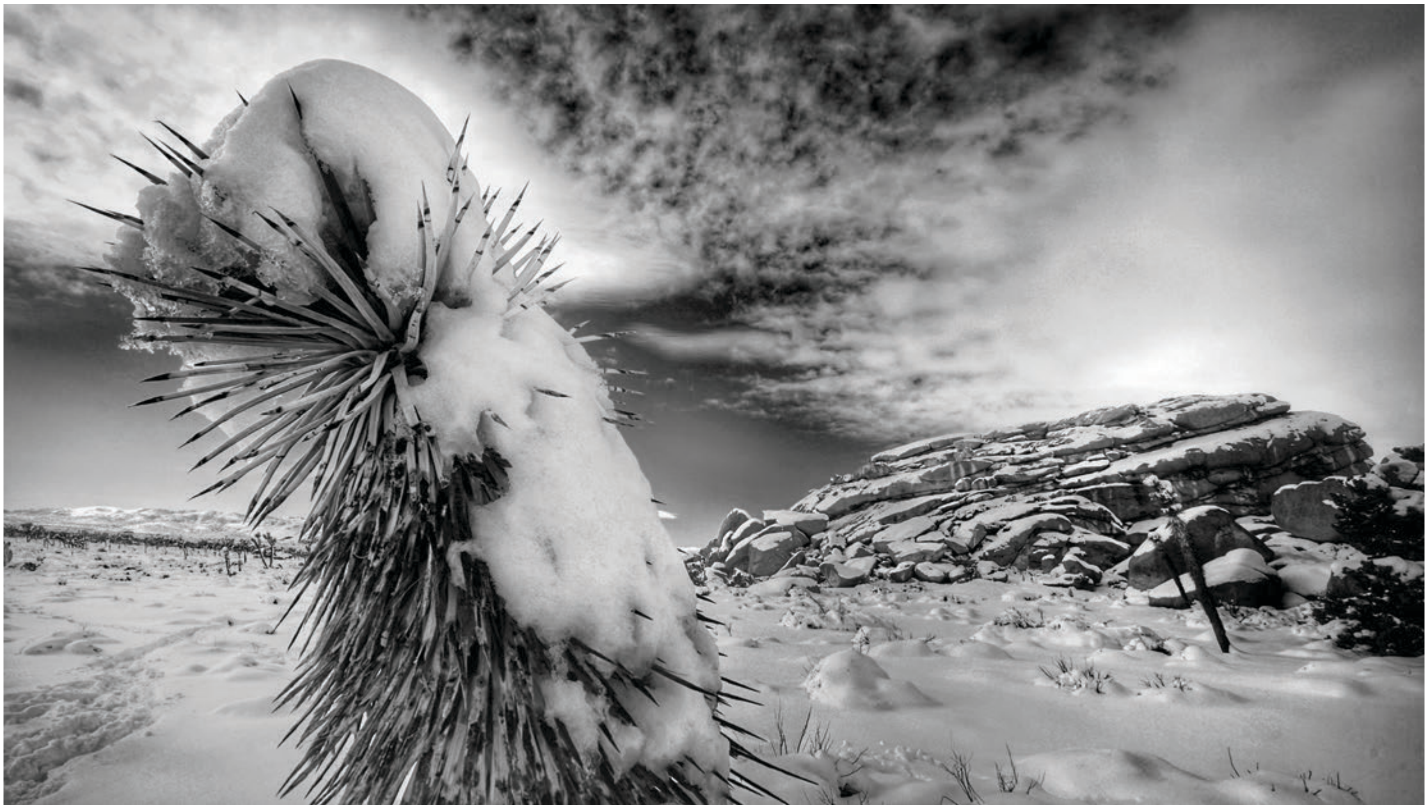
Mihai Mălaimare Jr., ASC
Rome • 2009
Voigtlander Bessa R3M + 40mm Nokton



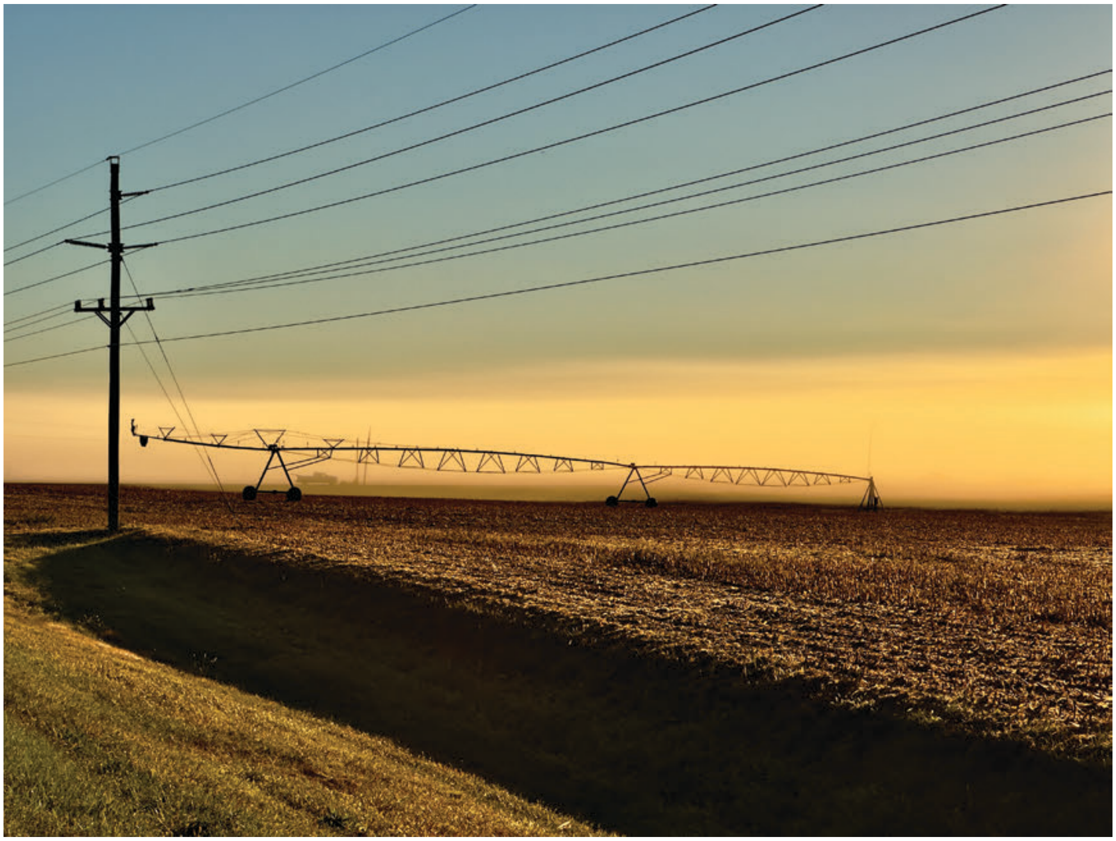
Charlie Lieberman, ASC
Malibu Creek State Park • 2024
Leica M11 + 35mm Summicron

John Conroy, ASC, ISC
Far From the Short Grass • Hungary • 2016
iPhone 6

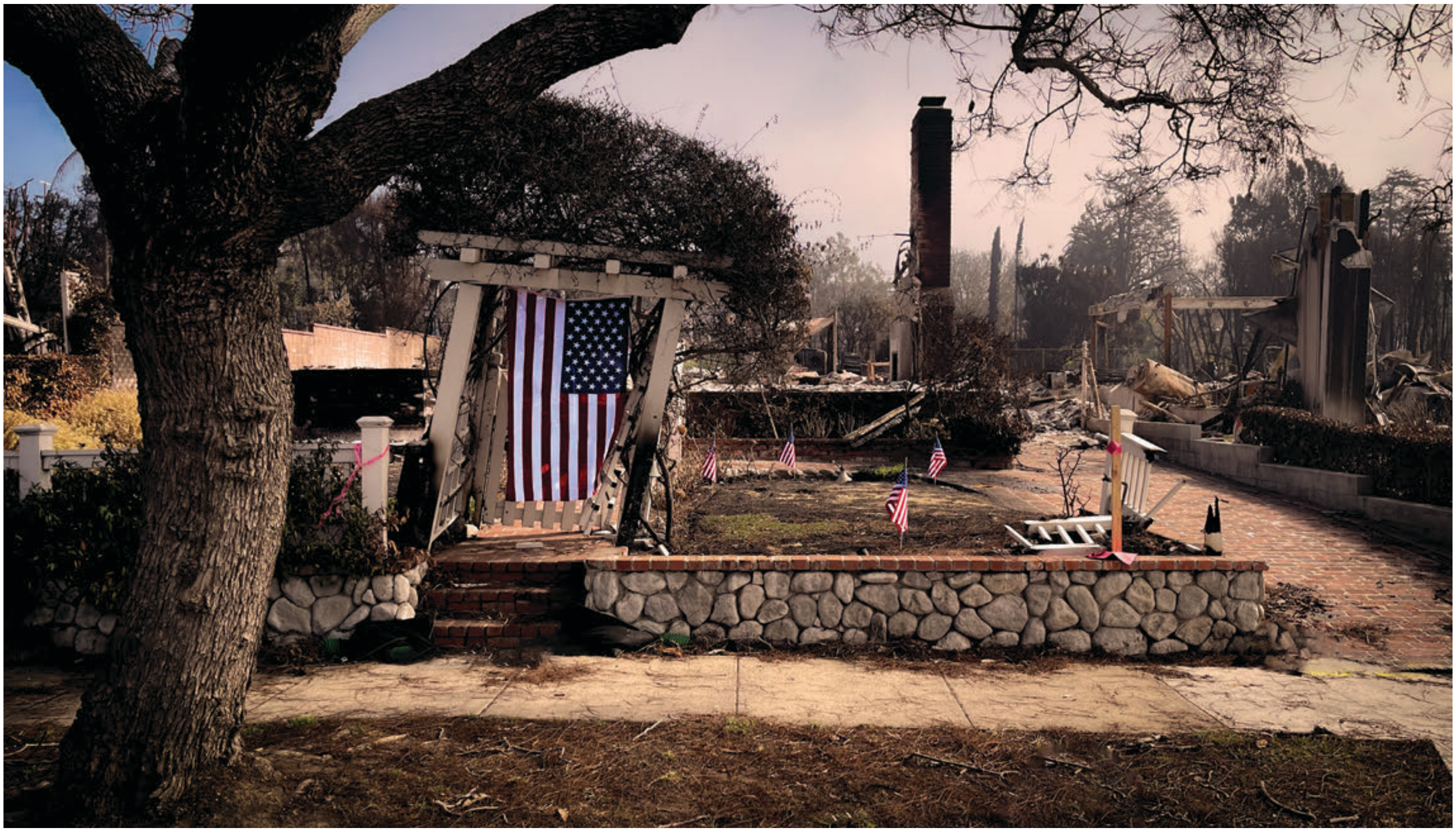




Shelly Johnson, ASC
Joshua Tree National Park • New Year's Eve, 2013
Sony Alpha 7M + Zeiss FE 16-35mm *f*/4

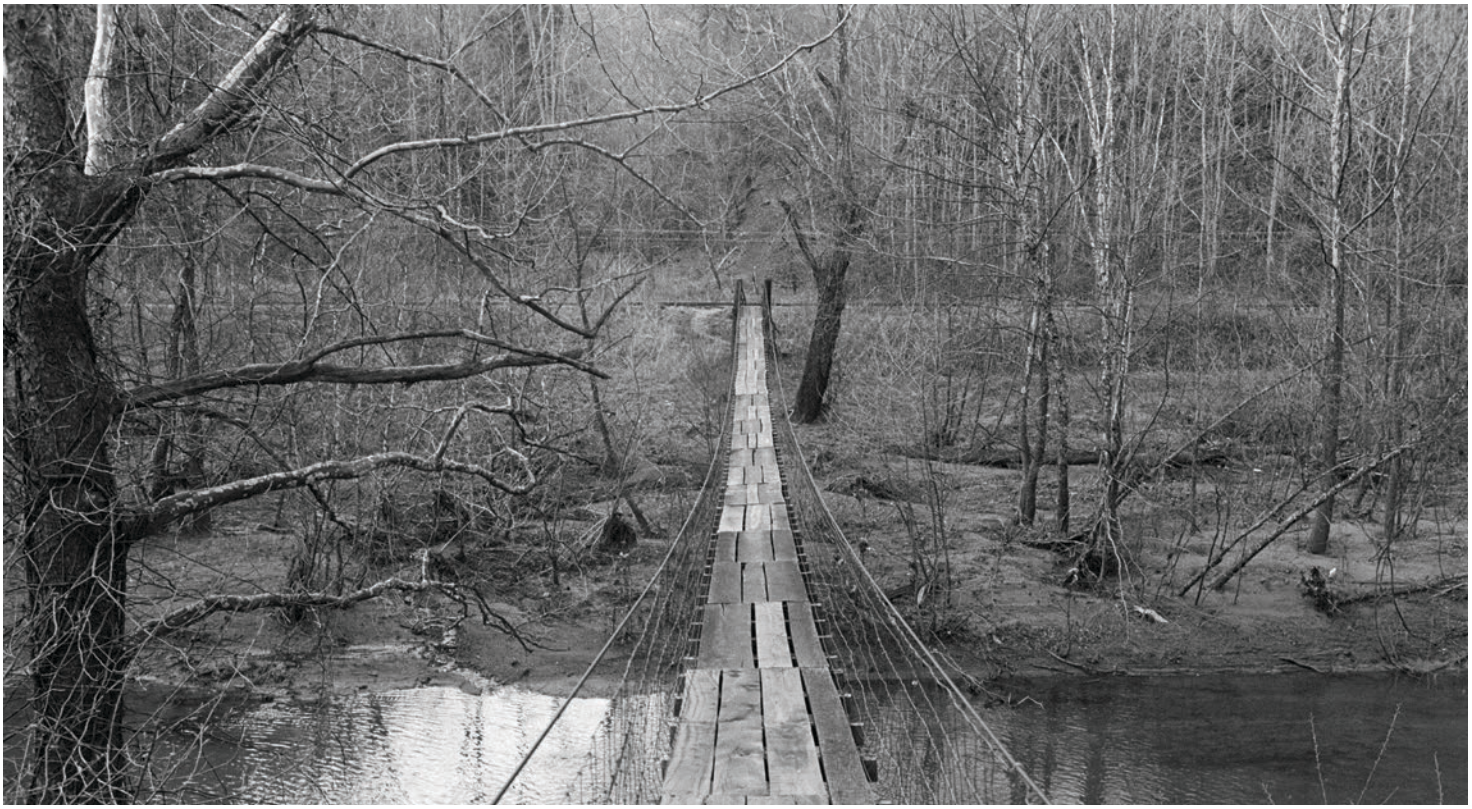


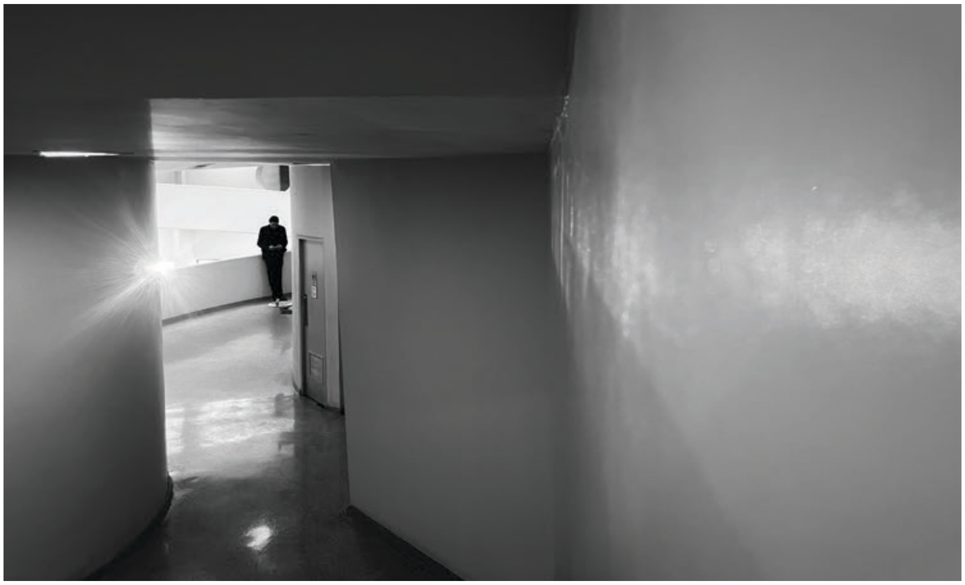
Anastas Michos, ASC, GSC
Pickup Truck • 2024
iPhone 14 Pro



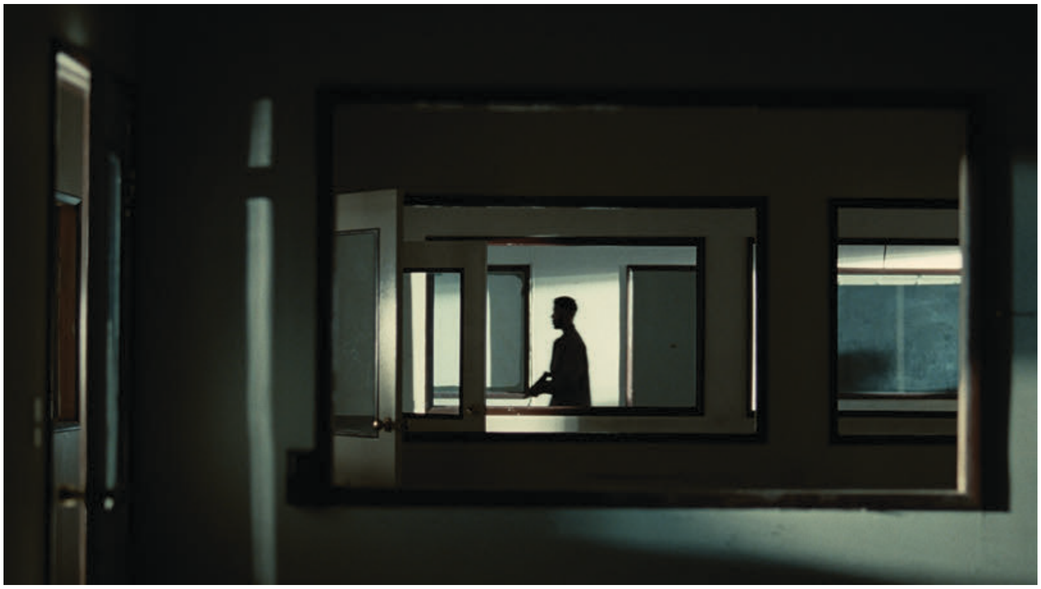
Richard Crudo, ASC
Pacific Palisades • Feb. 2, 2025
iPhone 12 Pro

Ernest Holzman, ASC
Walk Bridge • Pikeville, Kentucky • 1970
Nikon F + Nikkor 35mm

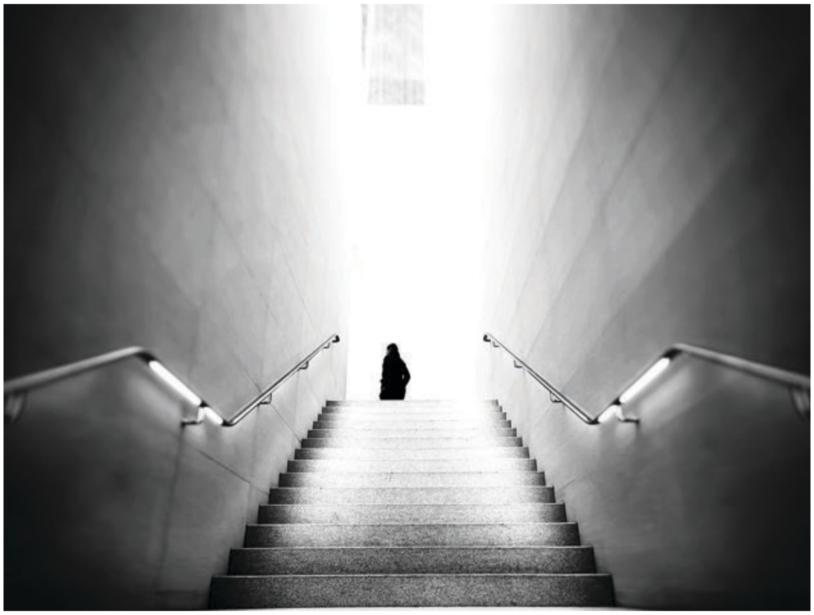




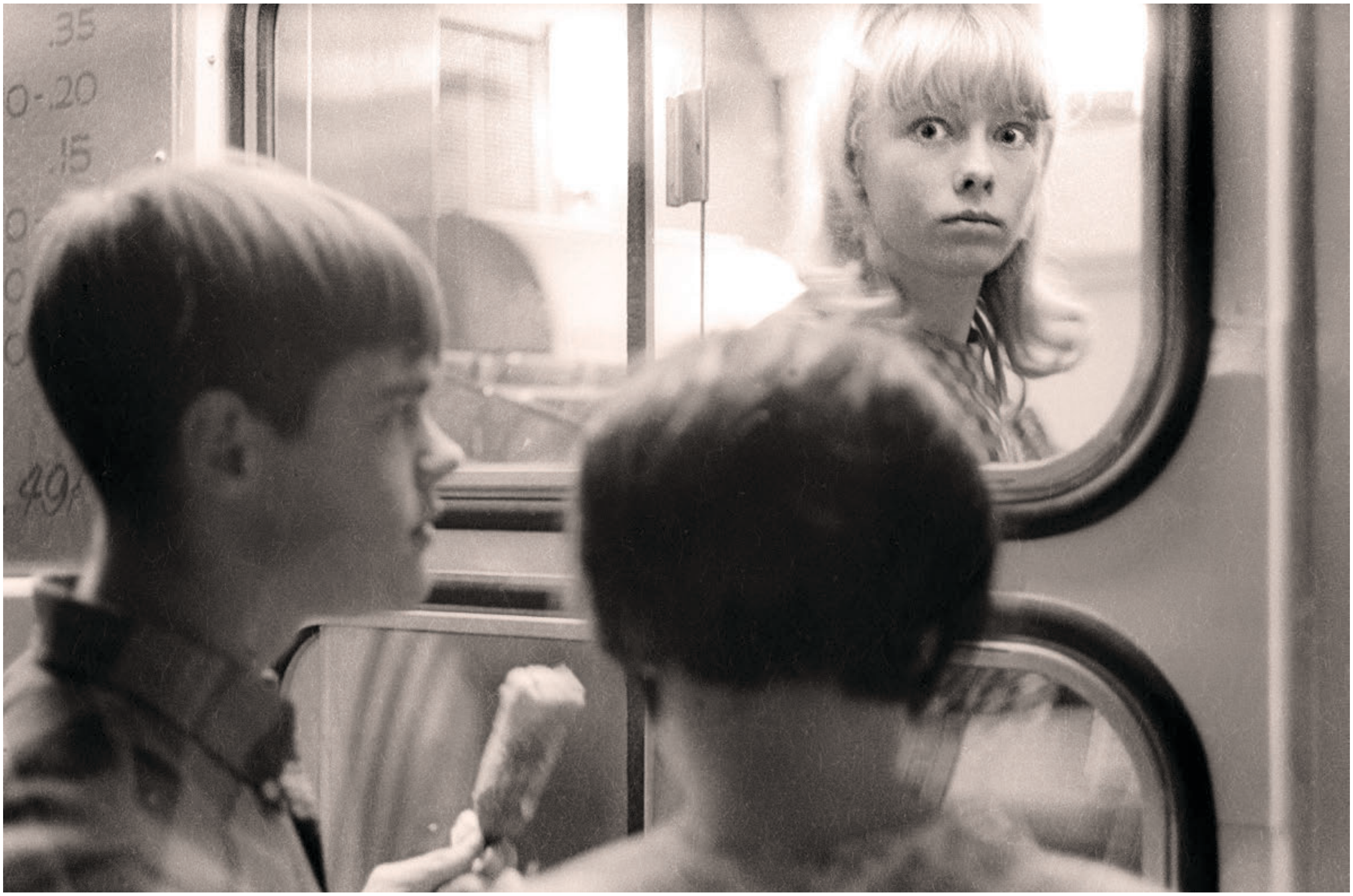
Jaron Presant, ASC
Manhattan • 2024
iPhone 13 Pro



Roberto Schaefer, ASC, AIC
After Hopper • 2020
Sony Alpha 7S II



Eagle Egilsson, ASC
Grit • 2024
iPhone 16 Pro



Paul Ryan, ASC
The Ice Cream Bar •
Eugene, Oregon • 1969
Nikon F + Nikkor 105mm +
Kodak Tri-X

People and Faces

Art photography is a reflection of human experience, a fact multiplied when the subject is another human: a face through a train window, a child on a swing set, a solemn look deep into the lens. The result is a pairing of experiences, of photographer and photographed, linked for a fraction of a second and for all time.

The images on the following pages have been taken by cinematographers, who excel at storytelling, so when a photo leads one to ponder not just the instant, but what led the subject there and what happens next, there's a good reason why. Sans outside direction and film crews, these artists have let themselves loose to filter the world through their very personal lenses, telling the tale of a moment in a way that's unique both to them and to those they capture. "If a photographer cares about the people before the lens and is compassionate, much is given," Eve Arnold once said. "It is the photographer, not the camera, that is the instrument."

Introducing a new wrinkle to this year's "People" gallery, *AC* has placed some additional emphasis on "Faces" in particular — their expressions and contours, their relationships to their environments. And to add a bit of fun, a few of these faces aren't what you'd expect.

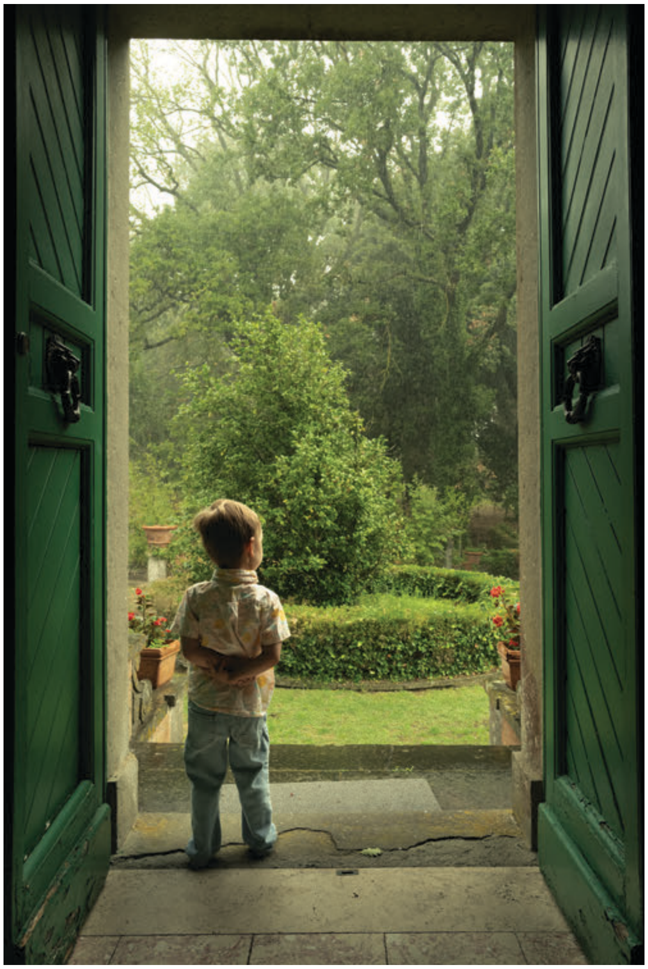
So, enjoy these images of people and faces through the eyes of the artists who planned, sought out or happened upon them — who have taken "an instant out of time," as Dorothea Lange described, "altering life by holding it still."

— *Andrew Fish*

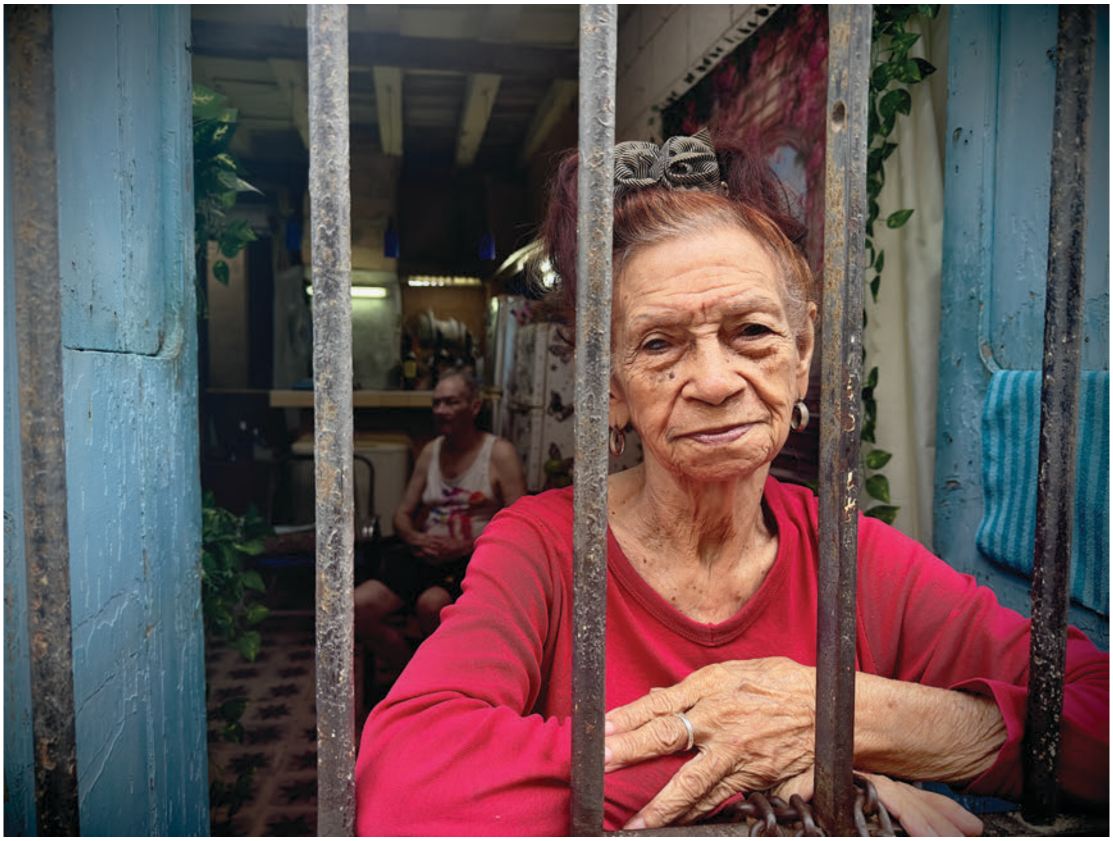
Dejan Georgevich, ASC
Free Bird • 2020
Apple iPhone XR

Sam Nicholson, ASC
School Kids • London • 2003
Canon EOS D60 + 75-300mm

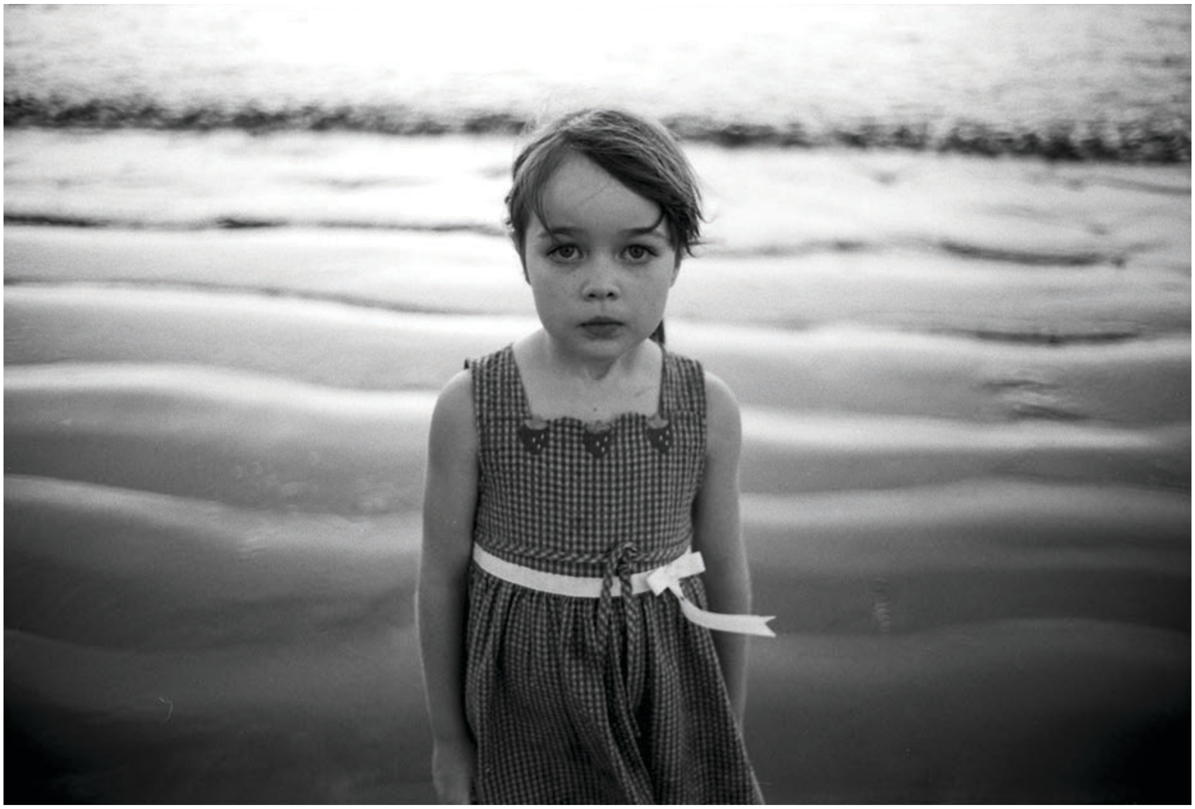
Ernest Dickerson, ASC
Dive! • 2014
Nikon Coolpix S9100



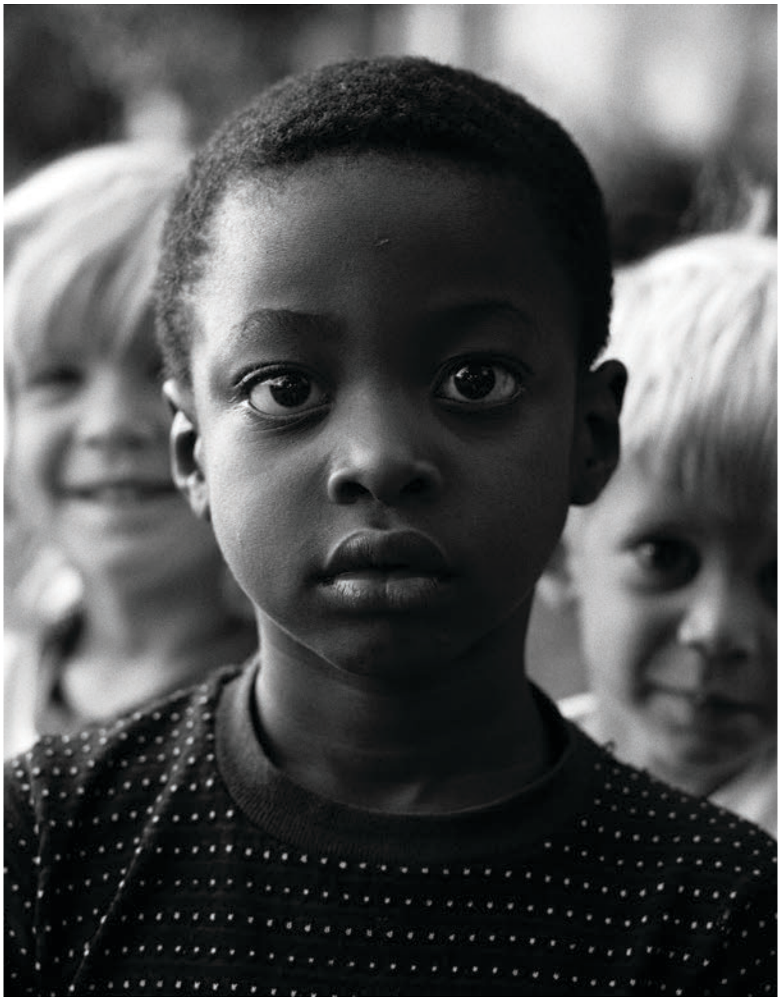
Alex Disenhof, ASC
A Quiet Moment in Italy • 2024
Leica Q2 + Summilux 28mm



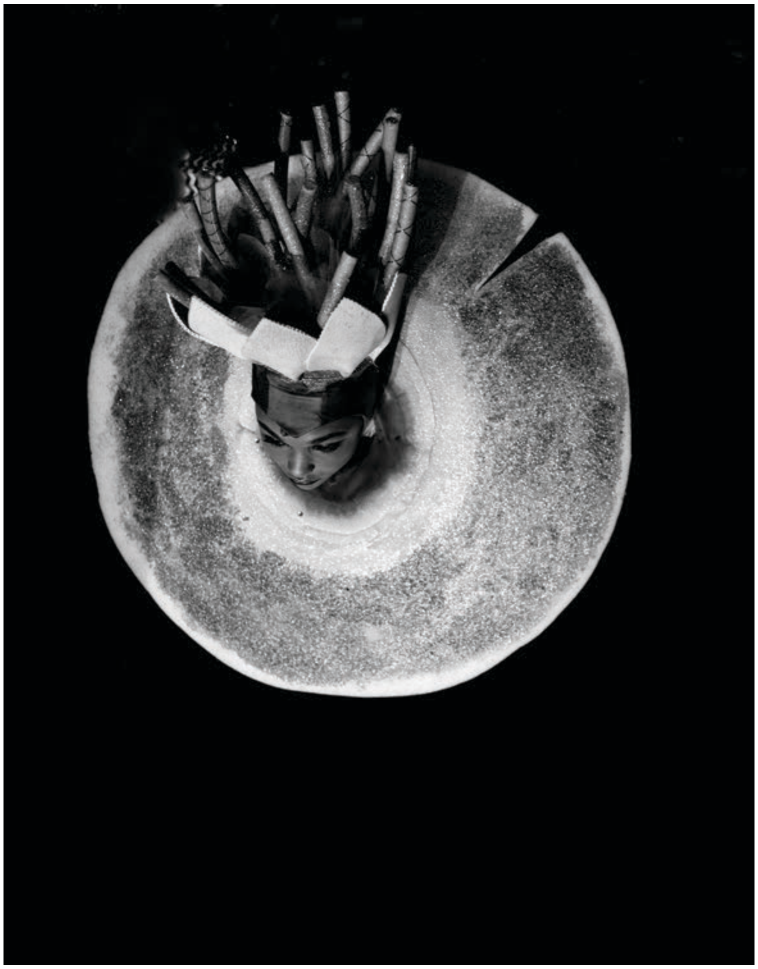
Anastas Michos, ASC, GSC
Room With a View • 2025
iPhone 14 Pro



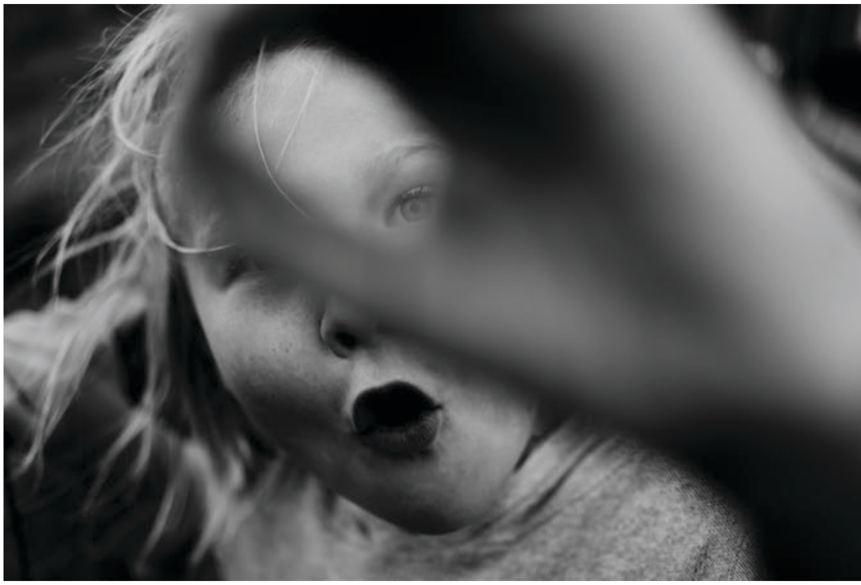
Christopher Norr, ASC
Sadie in Nicaragua • 2008
Leica M6 + Summicron 35mm
+ Kodak Tri-X



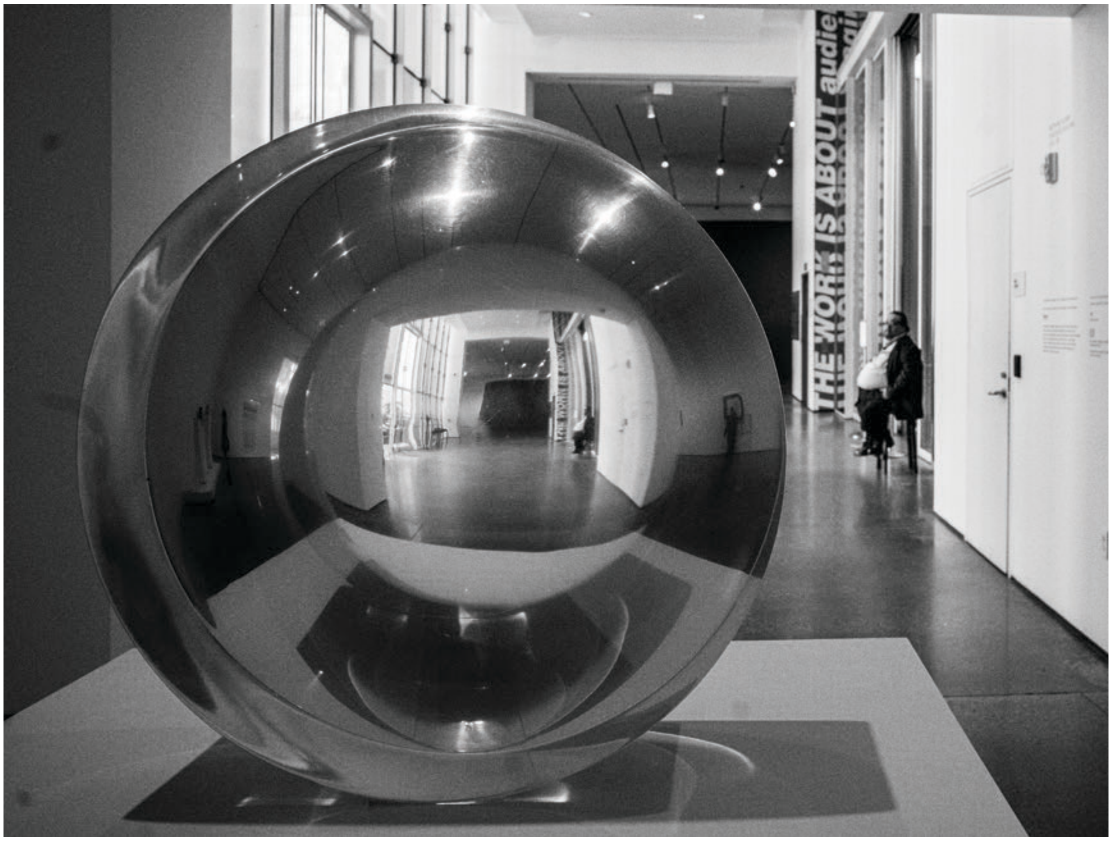
Reed Smoot, ASC
Tobias • 1983
Hasselblad 500C/M + Zeiss Planar 100mm + Kodak Tri-X



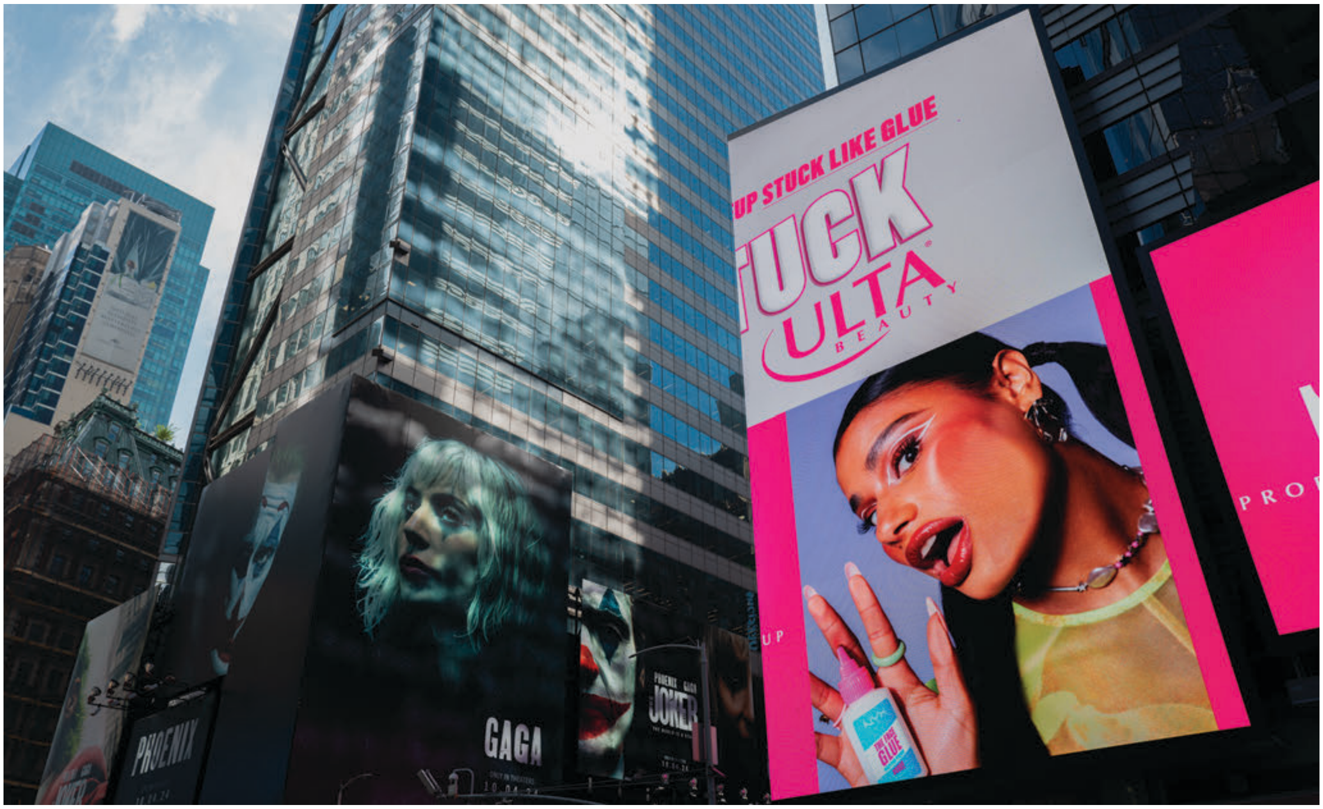
John Simmons, ASC
Lotus • 2022
Leica Q2 Monochrom + Summilux 28mm



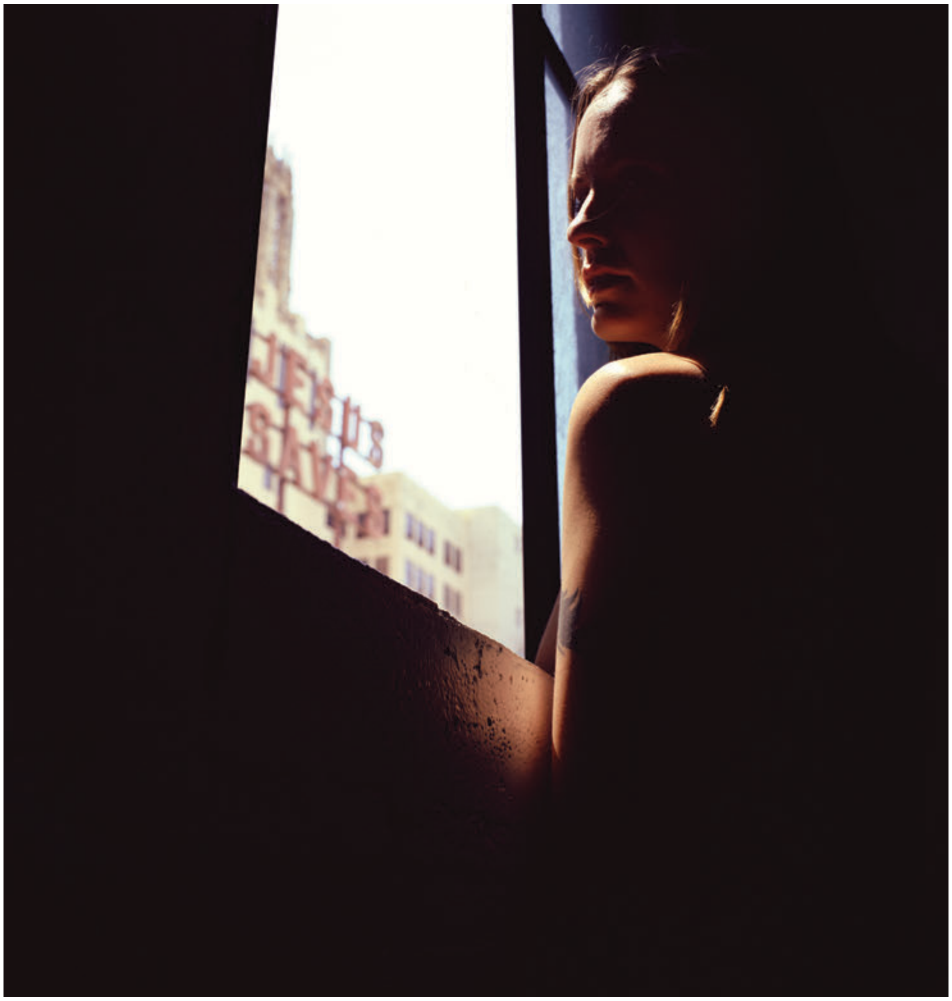
Sean Porter, ASC
On the Train • Santa Fe, New Mexico • 2024
Sony Alpha 7C + Sony FE 40mm *f*/2.5 G



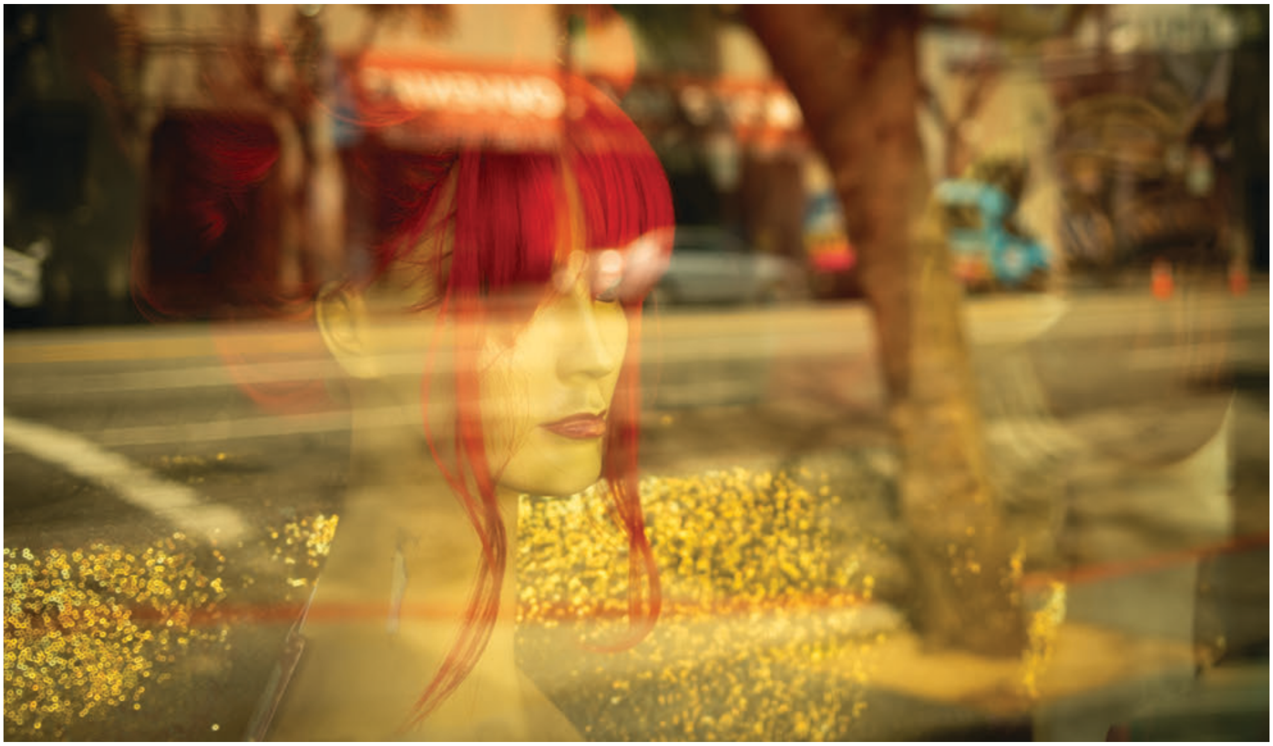
Denis Lenoir, AFC, ASC, ASK
LACMA, LA • 2023
Sony Alpha 7R III +
Leica Summilux 21mm


UP STUCK LIKE GLUE
TUCK
ULTA BEAUTY
GAGA
JOKER
PHOENIX
PRO

Stijn Van der Veken, ASC, SBC
Folie à Deux • 2024
Leica Q3 + Leica Summilux 28mm

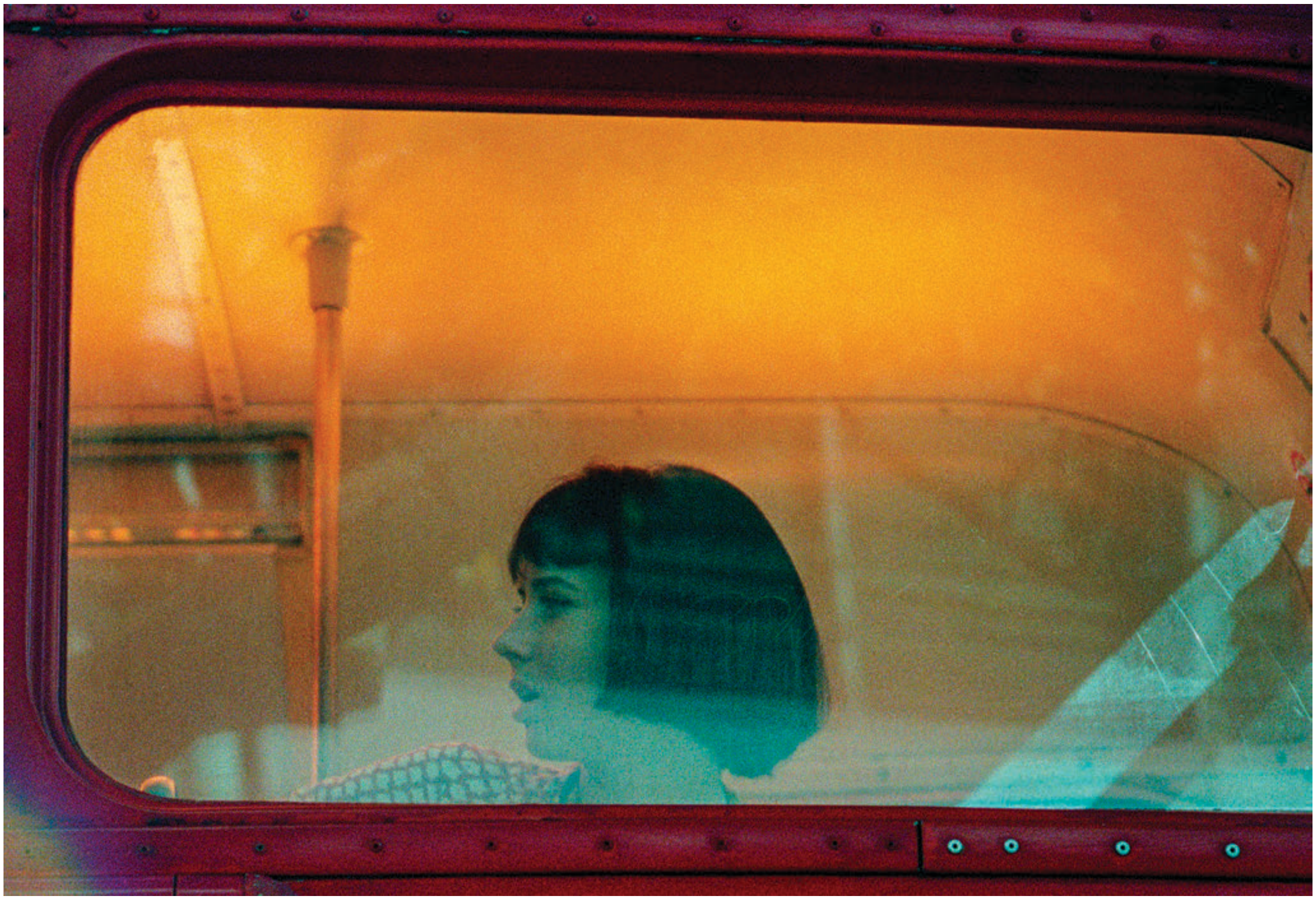

JESUS SAVES

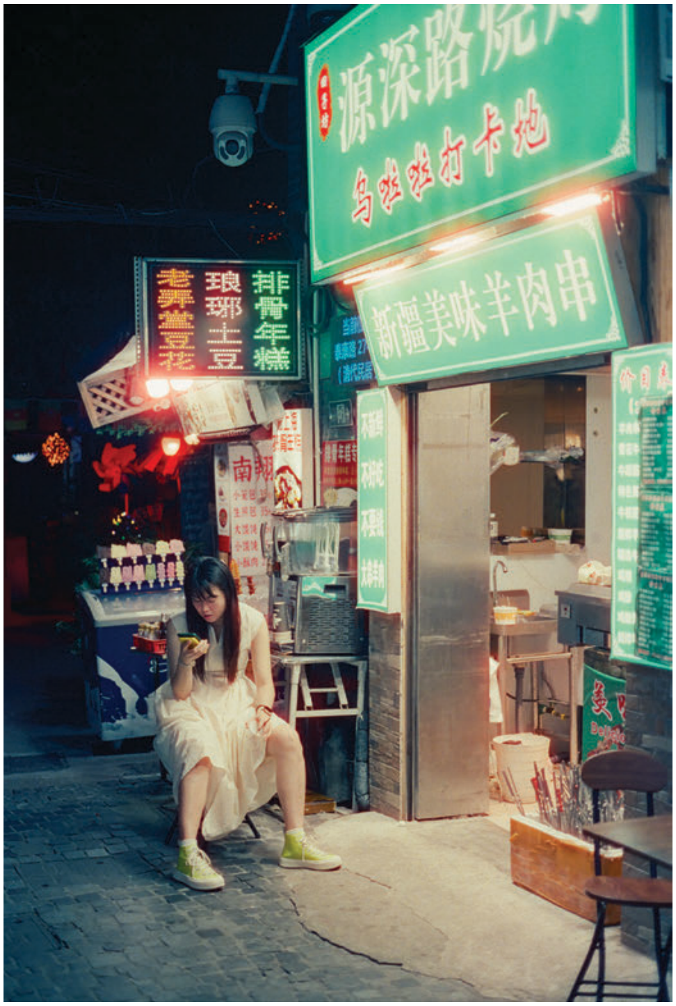
Ernest Holzman, ASC
912 So. Hill St., LA • 2017
Busch Pressman 4×5 +
Super-Angulon 90mm



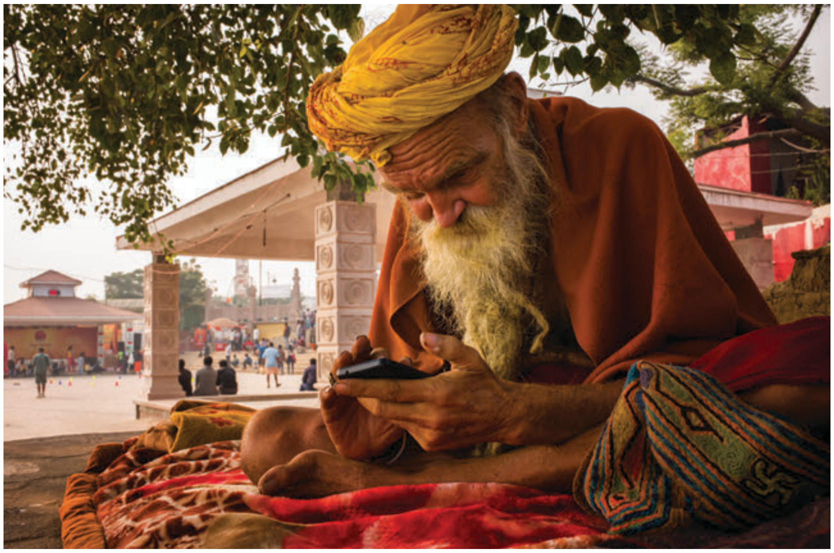
Jon Joffin, ASC
Fame Is Out There • 2024
FujiFilm X100V + 23mm

Dana Gonzales, ASC
Girl on the Red Bus • 2019
Leica M6 + Elmarit 90mm *f*/2.8 + Kodak Portra 400



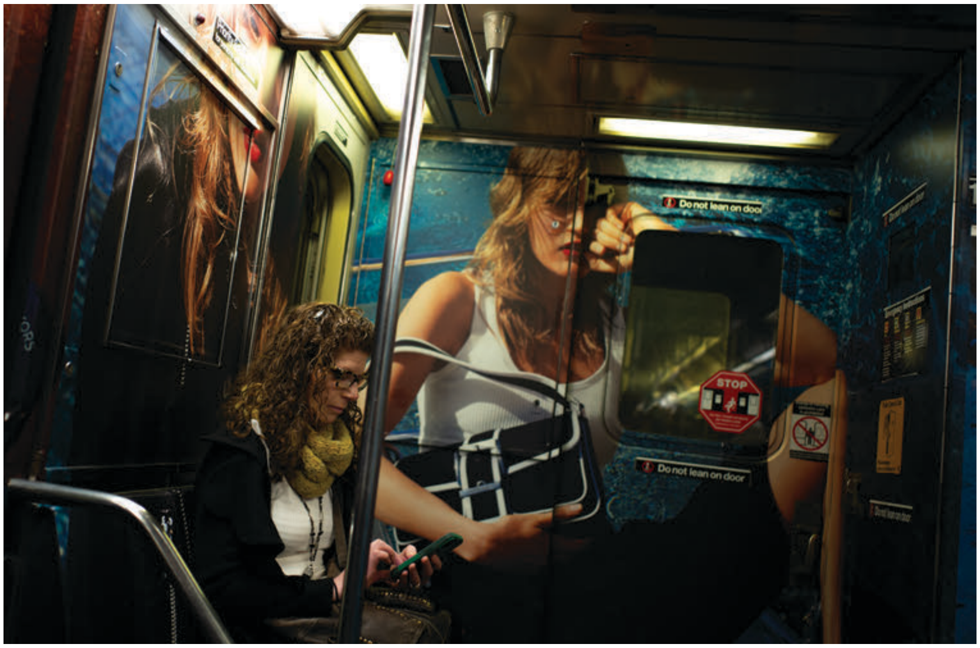

源深路烧烤
乌啦啦打卡地
新疆美味羊肉串
老弄堂豆花
琅琊土豆
排骨年糕

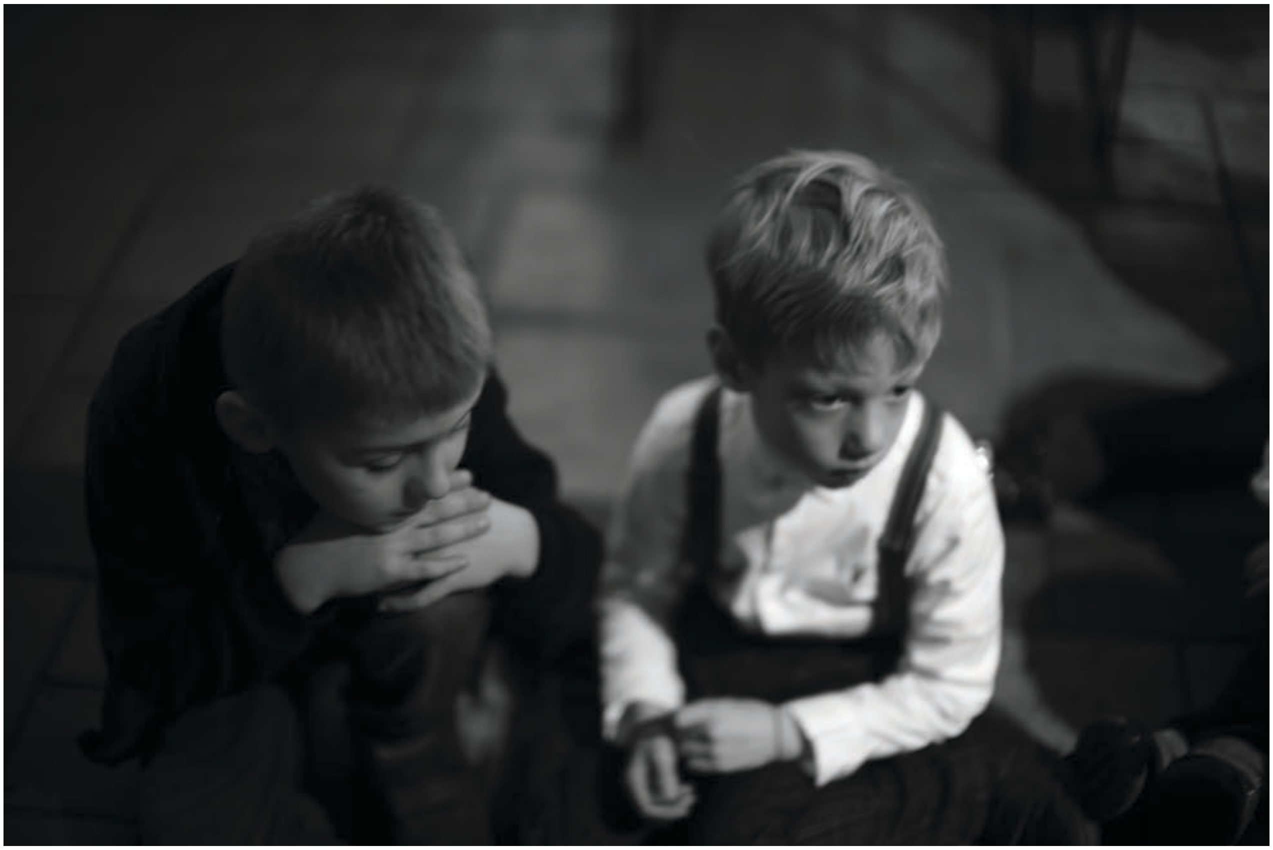
Mihai Mălaimare Jr., ASC
Shanghai • 2024
Contax G2 + Planar 35mm *f*/2



Charlie Lieberman, ASC
Varanasi • Uttar Pradesh, India • 2018
Leica M10-P + Leica Summilux 35mm *f*/1.4

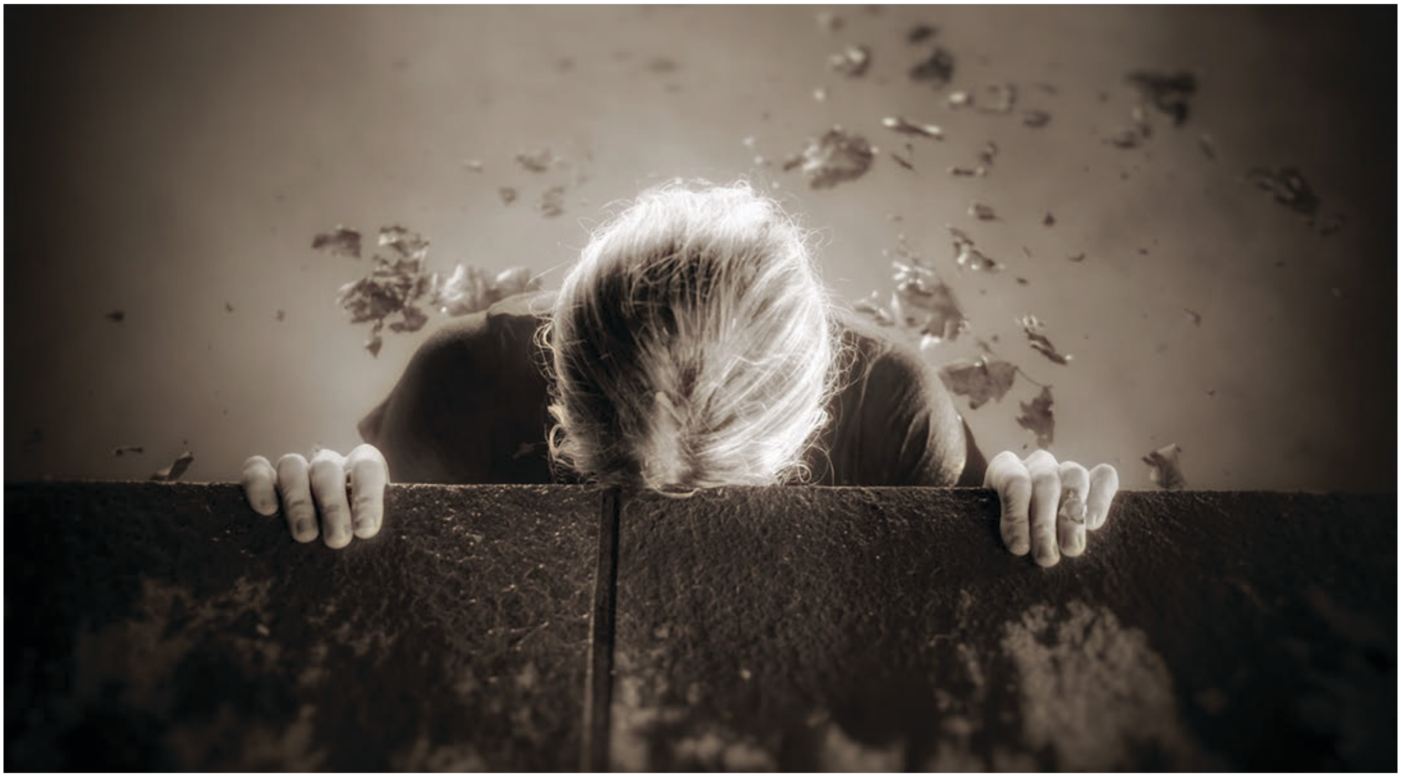
Frederick Elmes, ASC
New York Subway • 2024
Leica M 240 + 28mm


Do not lean on door
STOP
Do not lean on door



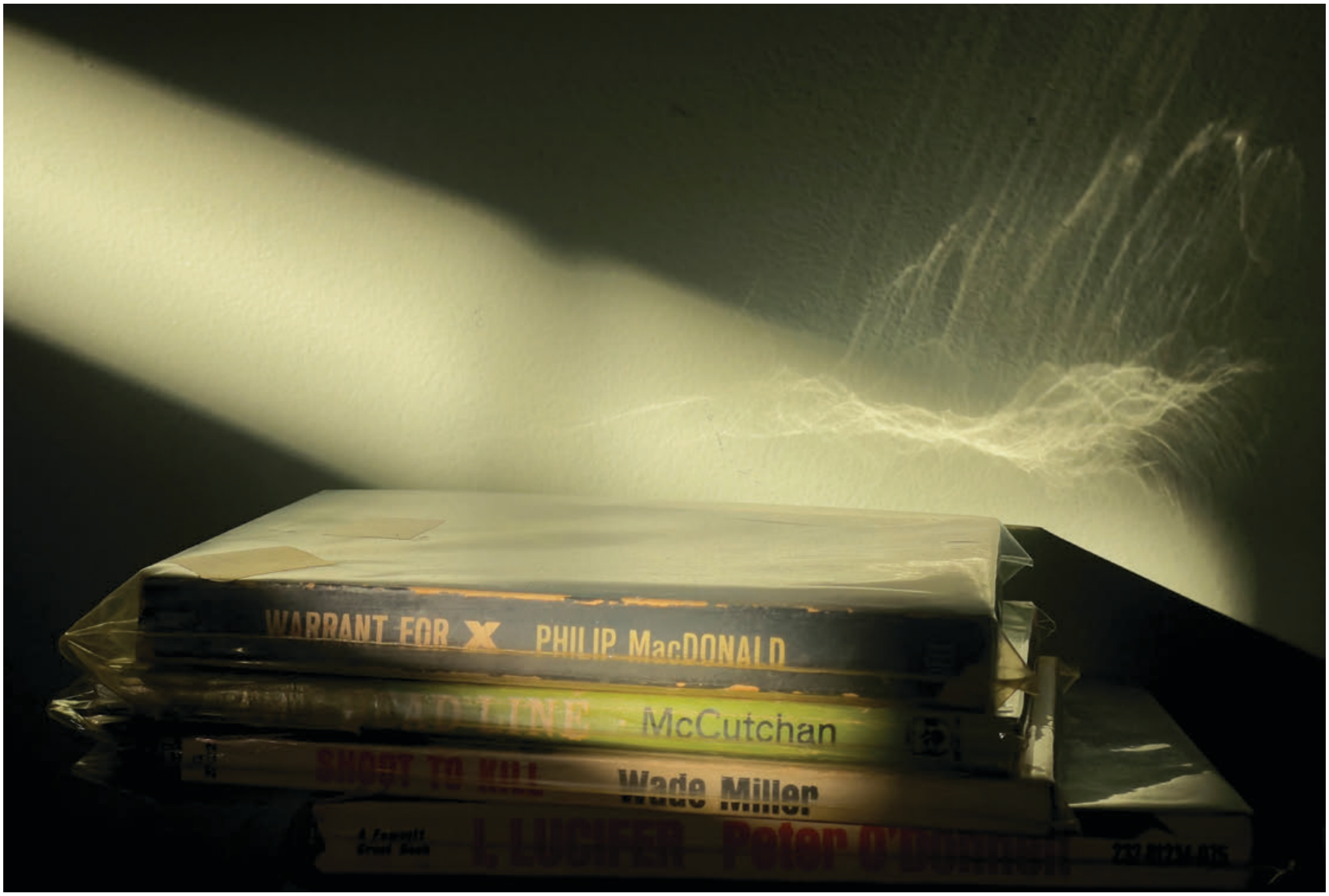
Mandy Walker, ASC, ACS
Untitled • Poland • 2022
Leica M Monochrom (Typ 246) + Noctilux 50mm *f*/0.95

Eagle Egilsson, ASC
***Pursuit* • 2024**
Leica M11 Monochrom + Leica Summicron 28mm *f*/2



Richard Crudo, ASC
On the Wing • 2014
Canon EOS 5D Mark III + 24-105mm *f*/4

Crescenzo Notarile, ASC, AIC
Cat Inside Her Shadow • 2015
iPhone 6



Patrick Cady, ASC
Pulp Novels • 2025
iPhone 12 Pro

Still Life

The art of still-life photography combines the skills of observation, composition, lighting and execution, but an individual's taste and aesthetic judgment are also crucial to transforming a compelling arrangement of objects into a striking or memorable image. As photographer Matt Hardy mused, "Beauty can be seen in all things. Seeing and composing the beauty is what separates the snapshot from the photograph." Or, as his fellow photographer Jim Richardson has suggested, "If you want to be a better photographer, stand in front of more interesting stuff."

Of course, even mundane subjects may intrigue the viewer when they are noticed, arranged and recorded by an artist, whose sensibilities can imbue inanimate objects with fresh subtext or meaning. On this page, ASC member Patrick Cady creates an evocative homage to noir, using lighting and composition to lend wry ambience to a stack of pulp novels; on page 57, Society member Mihai Mălaimare Jr. finds a pleasing symmetry in a banana peel on a decorative plate.

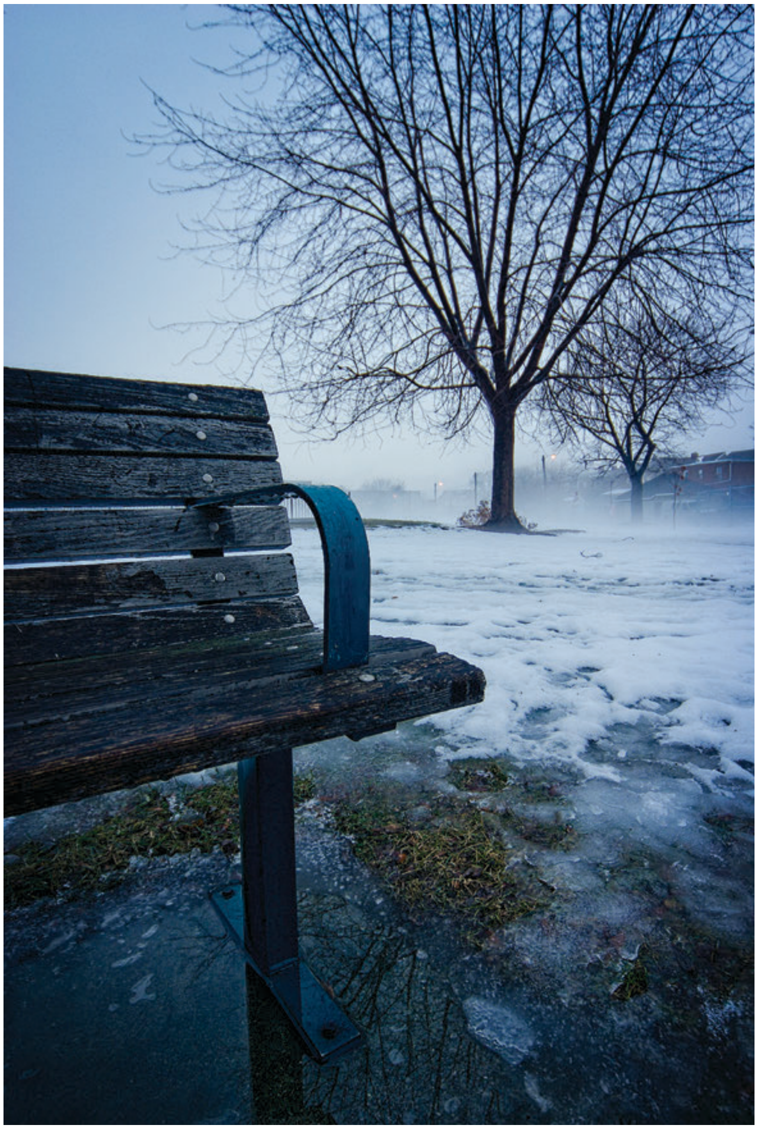
The genre of still-life photography emerged as photography itself was invented during the early 1800s, when those behind the lens could not yet capture moving subjects readily. One of the earliest photographs that still survives, taken by pioneer Nicéphore Niépce, showed a table set with a cloth, a bottle, a bowl and some silverware. A few decades later, in the late 1800s, photographers began moving beyond straightforward technical demonstrations, evolving still-life photography into a diverse and vibrant art form of beautiful, atmospheric images that could capture the eye and inspire deeper examination.

Since those early days, still-life has continued to evolve and thrive as an art form. Key photographers in the genre include Sharon Core, whose work explores themes of memory, authenticity and the interplay between photographic truth and illusion; Edward Weston, whose still-life work focuses on form, texture and the beauty of everyday objects; and such notable artists as Natália Evelyn Benčičová, Mat Collishaw, Marcel Christ, Mitch Feinberg, Jonathan Knowles, Henry Hargreaves, Michael G. Jackson, Olivia Parker, Yukiko Masuda, Muhammad Hardi Saputra, Tatyana Skorokhod, Margriet Smulders and Krista van der Niet, among many others whose work is worthy of any aspirant's study and contemplation.

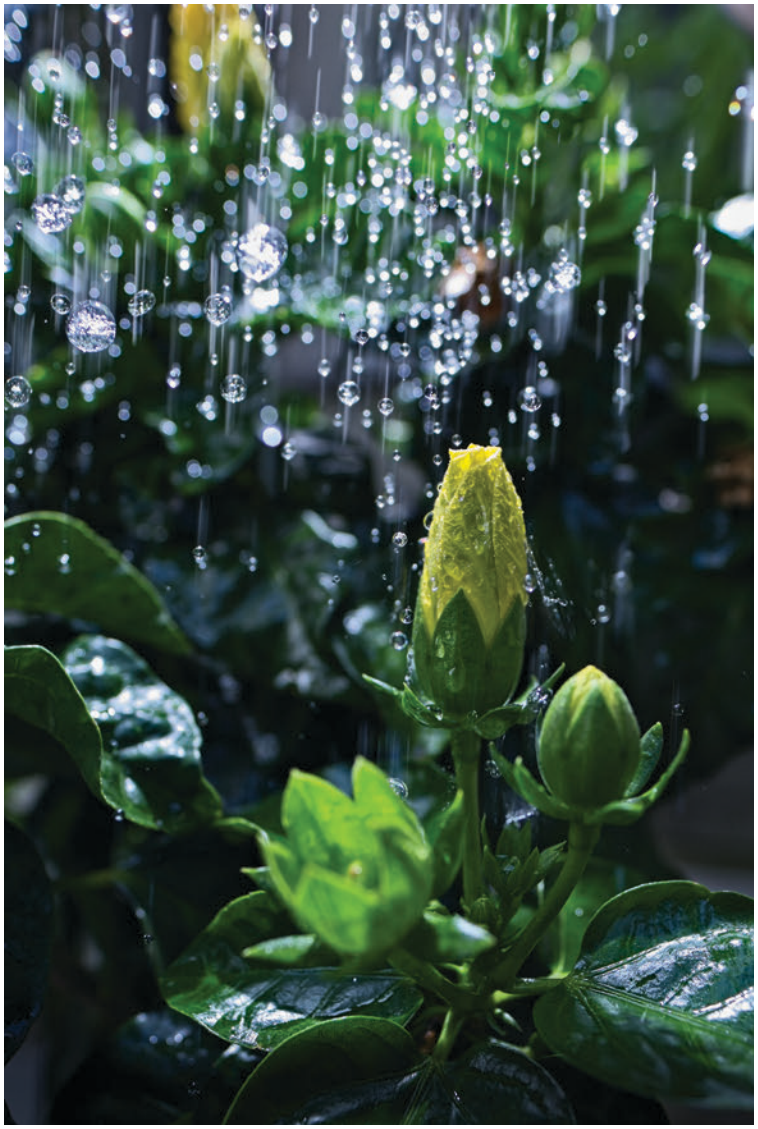
— *Stephen Pizzello*

James Neihouse, ASC
Window on the Bosporus • 2018
Canon EOS 5 + EF70mm *f*/2.8

Shana Hagan, ASC
Iris • Highland Park • 2020
iPhone XS

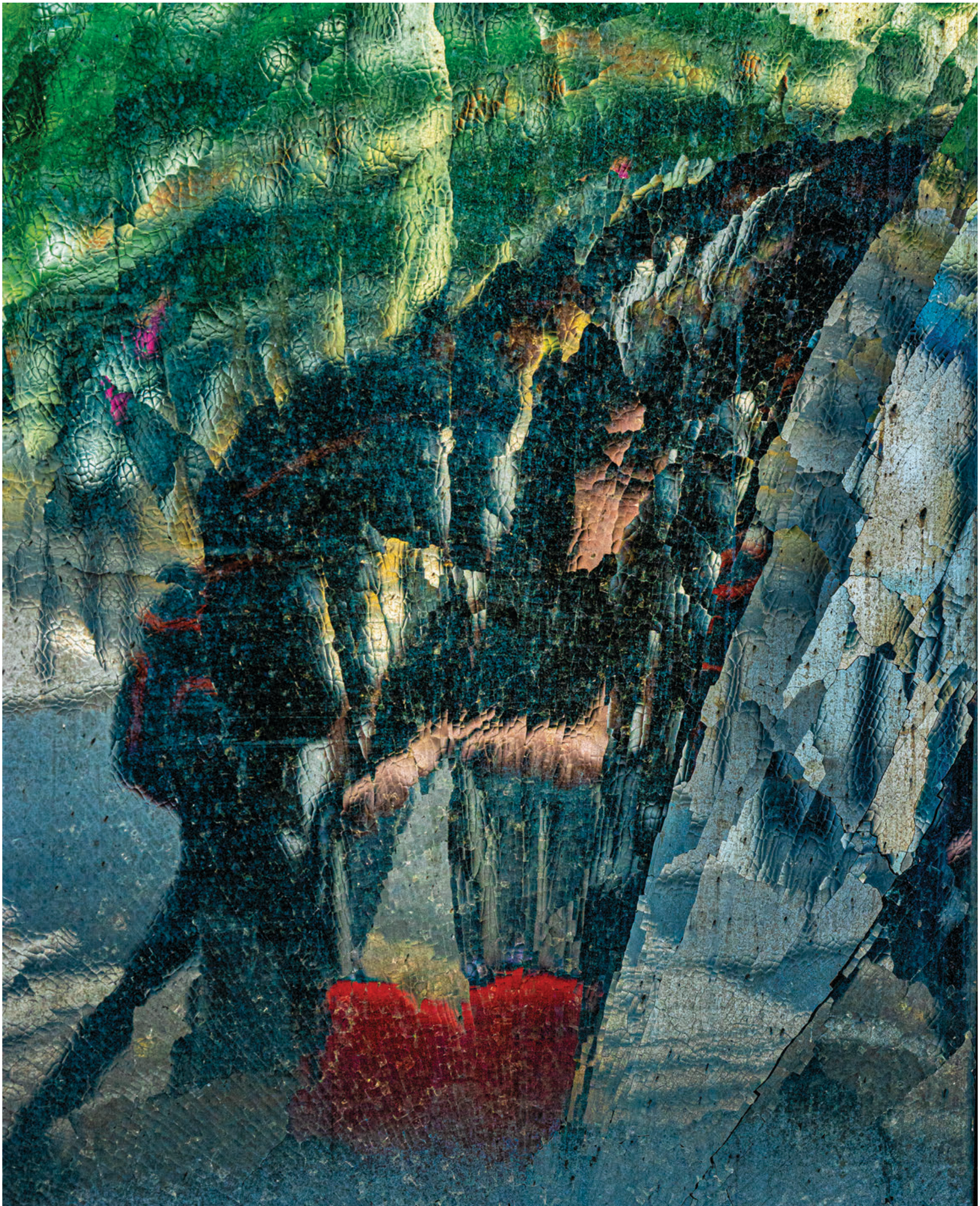


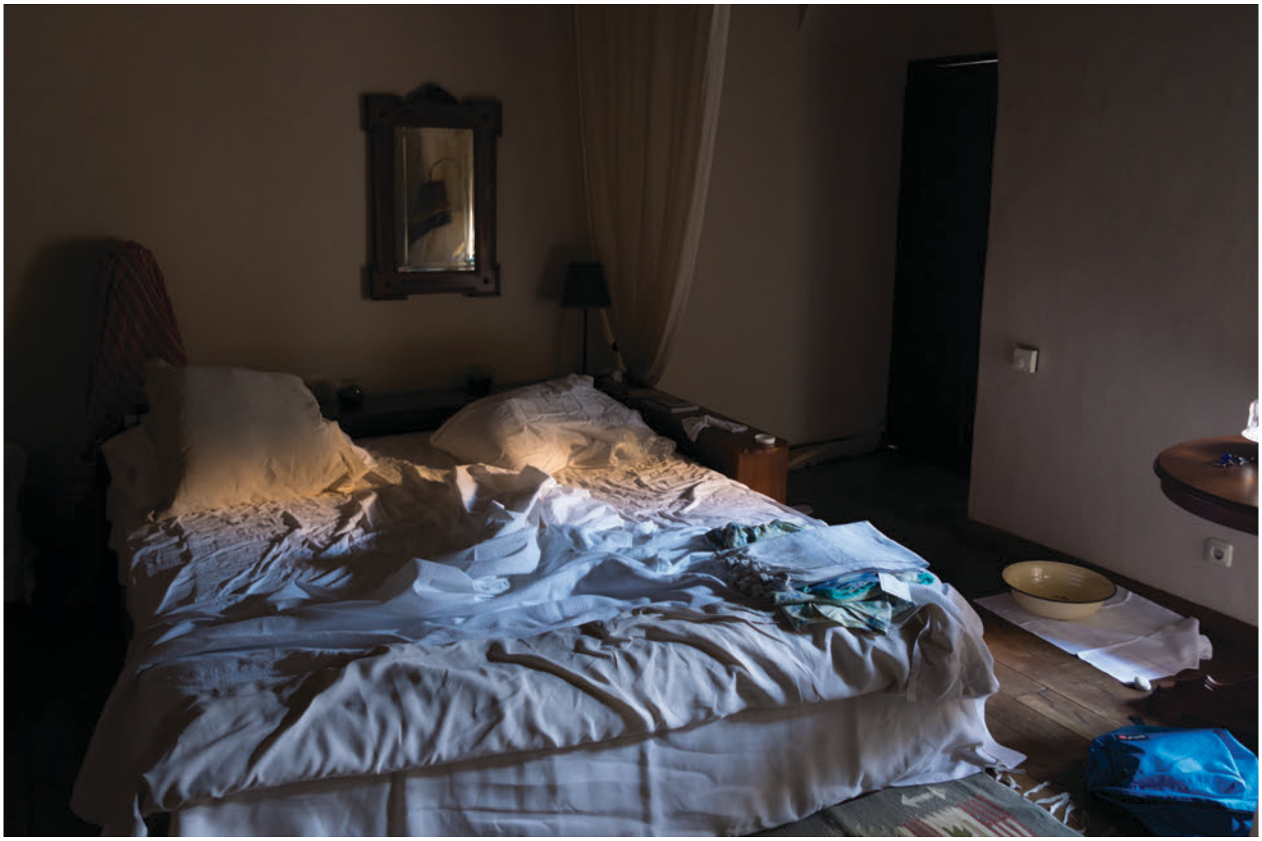
Colin Hoult, ASC, CSC
Cold Feet • 2008
Canon EOS 10D + EF 12-24mm



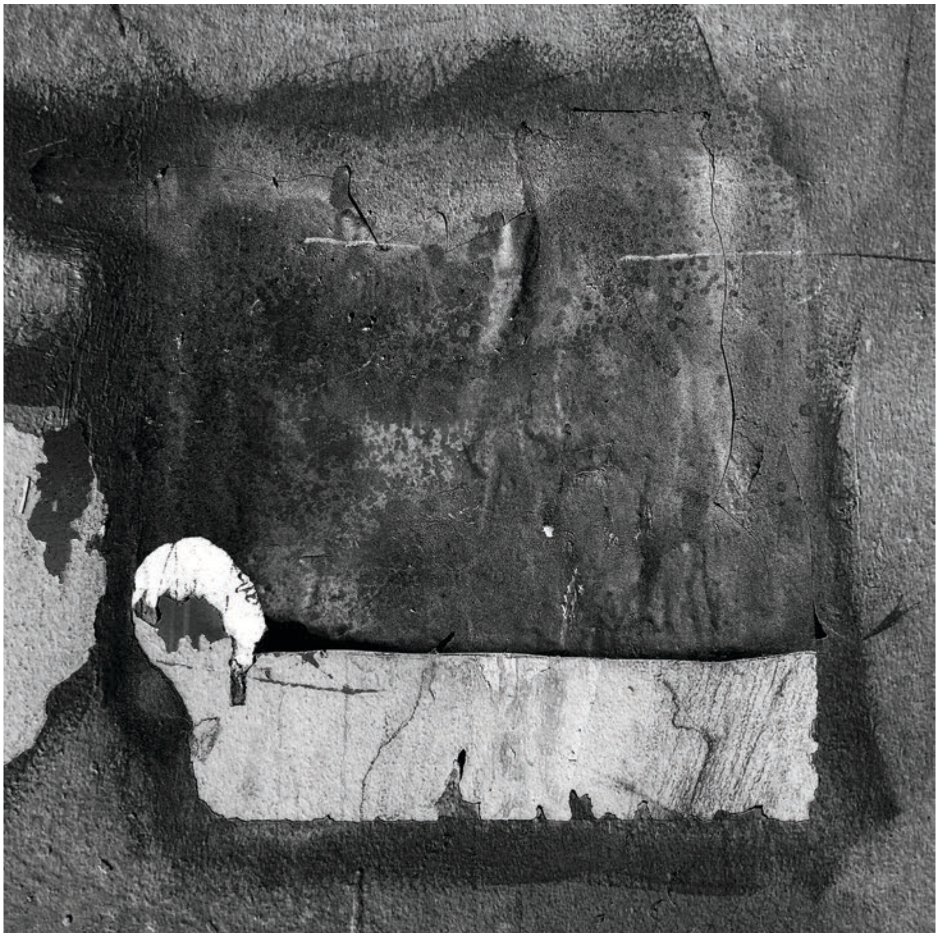
Colin Hoult, ASC, CSC
Rainfall • 2024
Fujifilm X-T3 + XF 16mm *f*/1.4

M. David Mullen, ASC
Broken Tourist • 2024
Nikon Z6 + Nikkor Z 85mm *f*/1.8





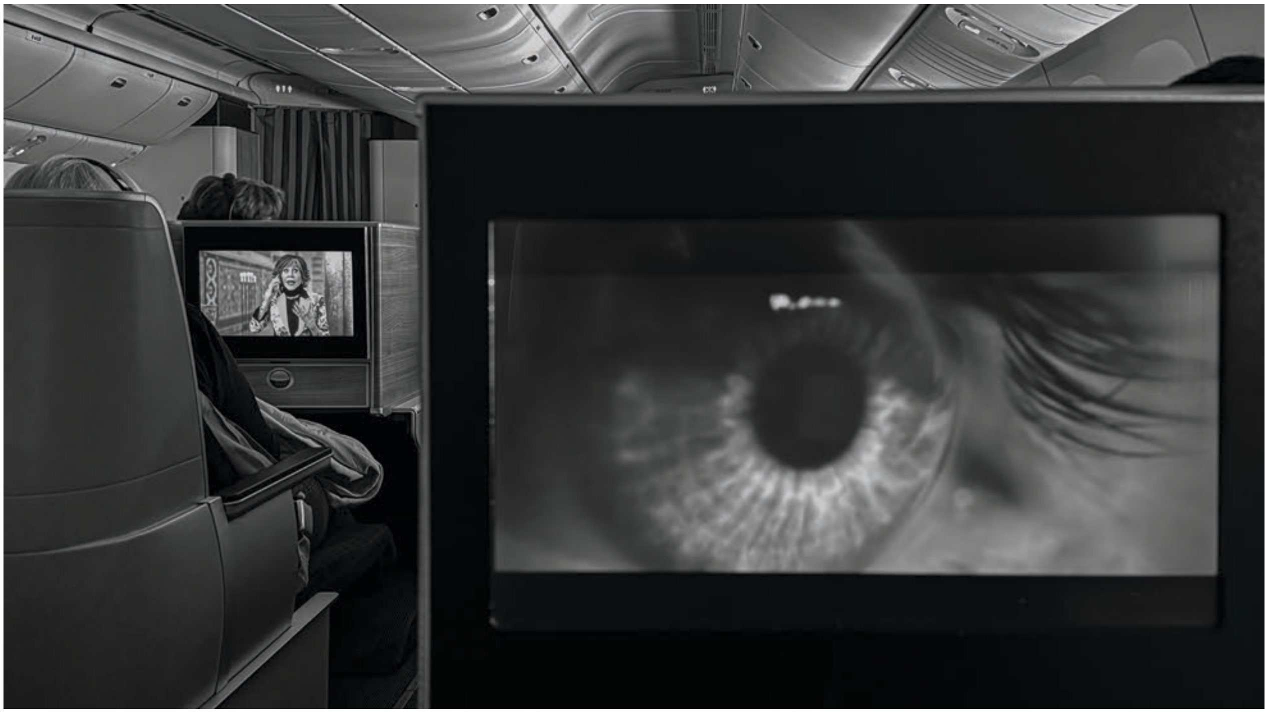
Frederick Elmes, ASC
Kavala, Greece • 2018
Leica X + Vario 18mm



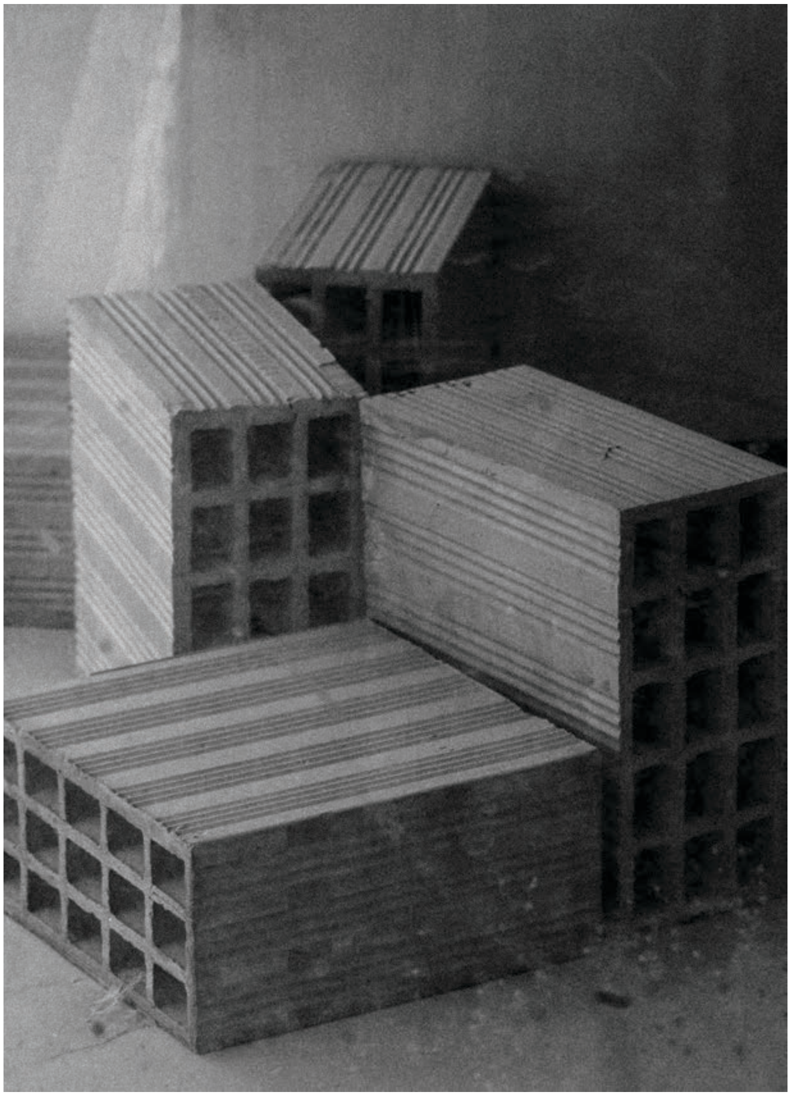
Alar Kivilo, ASC, CSC, ESC
Awake • 2016
iPhone

Mihai Mălaimare Jr., ASC
Shanghai • 2024
Leica M6 + Summicron-M 50mm

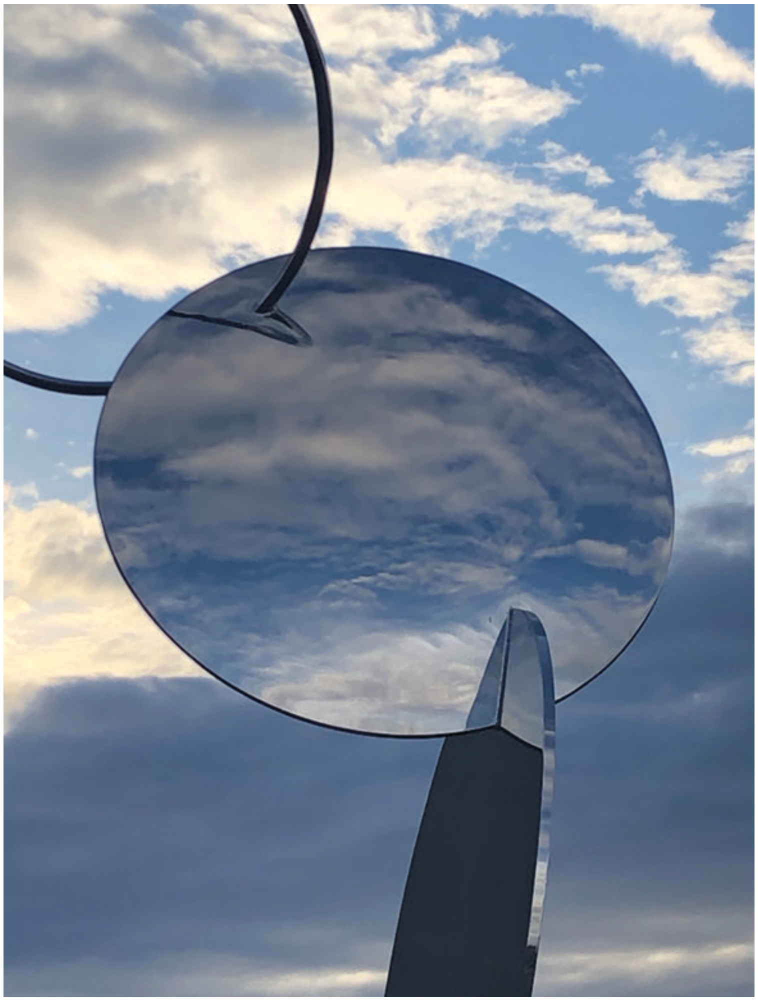
Caleb Deschanel, ASC
Neon Blur • São Paulo, Brazil • 2009
Polaroid SX-70



Karl-Walter Lindenlaub, ASC, BVK
***Suisse Air ZU-LA* • 2025**
iPhone 16 Pro

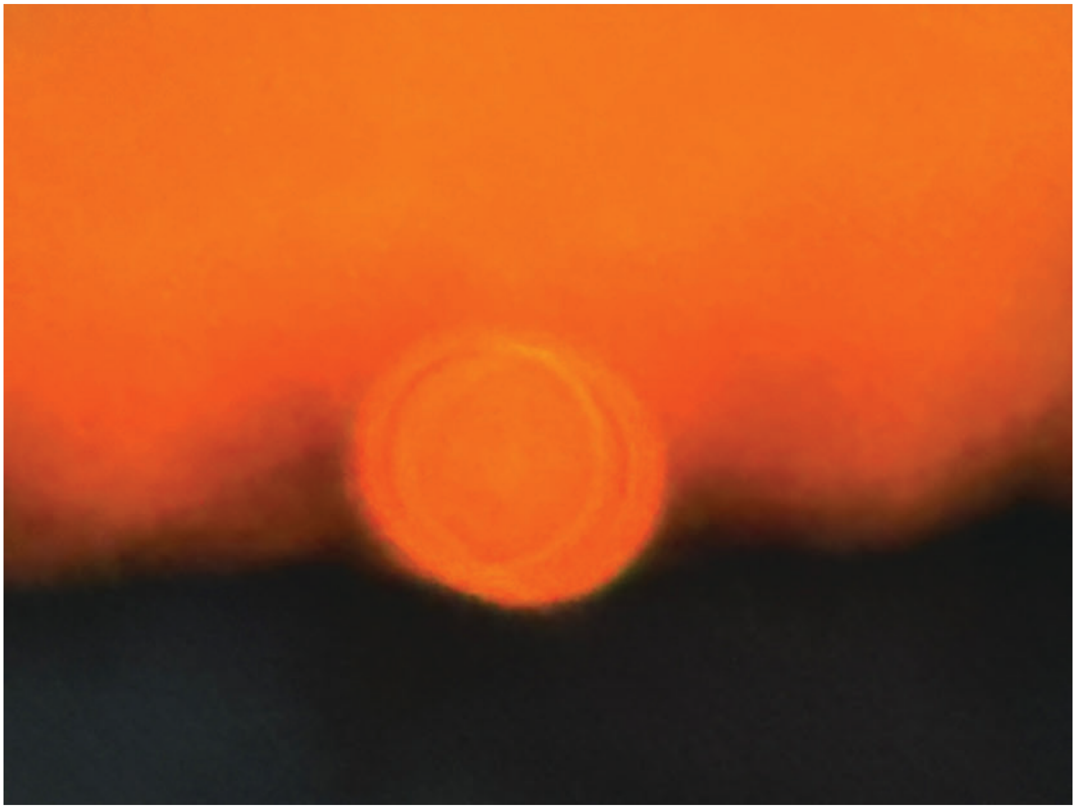


Dana Gonzales, ASC
***Bulgaria Texture Sketch #1* • 2021**
Leica TL2 + Elmarit-M 90mm *f*/2.8



Roberto Schaefer, ASC, AIC
Untitled • 2022
iPhone 8

Nancy Schreiber, ASC
Double Dazzle • 2023
iPhone 14 Pro



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A Family Affair

The 39th ASC Awards brought the cinematography community together for an evening of celebration and warm, convivial connection.

By Stephen Pizzello

2025 WINNERS

Theatrical Feature Film
Ed Lachman, ASC
Maria

Limited or Anthology Series or Motion Picture Made for TV
Robert Elswit, ASC
Ripley, "Lucio"

Episode of a One-Hour Regular Series
Sam McCurdy, ASC, BSC
Shōgun, "Crimson Sky"

Episode of a Half-Hour Series
Richard Rutkowski, ASC
Sugar, "Starry-Eyed"

Music Video Award
Pepe Avila del Pino, AMC
"313"

Spotlight Award
Jomo Fray
Nickel Boys

Documentary Award
Michael Dweck and Gregory Kershaw
Gaucho Gaucho

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Opposite: Ed Lachman, ASC accepts the Theatrical Feature award for *Maria*. This page: 1. Lachman addresses the crowd. 2. Andrzej Bartkowiak, ASC hoists his Lifetime Achievement Award. 3. Joan Churchill, ASC accepts the Lifetime Documentary Award. 4. Robert Elswit, ASC wins for the *Ripley* episode "Lucio." 5. Producer Kathleen Kennedy accepts the Board of Governors Award. 6. Michael Goi, ASC, ISC thanks the Society for his Career Achievement in Television Award.

Cinematographers and their colleagues are often described as "one big family," a dynamic that was on full display during the annual ASC Awards gala, held on Sunday, February 23 at the Beverly Hilton hotel in Los Angeles. Blood relations mingled with friends and associates who qualified as "close cousins" by virtue of their creative collaboration and support. All embraced a joyful atmosphere that lifted spirits in the wake of the recent L.A. wildfires, which had impacted more than a few of the event's guests in tragic ways.

A late-afternoon outdoor cocktail mixer sponsored by Cinelease, packed with cineastes, fostered a celebratory mood that carried into the hotel's ballroom, where table-hopping colleagues hobnobbed right up until dinner was served. The evening's theme of "widescreen cinema" provided a visual touchstone for film buffs, and ASC Awards Chair Chuck Minsky noted that six of the seven nominated feature films were shot in widescreen formats.

As the show began, actor Ed Helms took center stage for his second straight year as host. "If I knew you were gonna ask me back," he cracked, "I wouldn't have used up all of my *f*/stop jokes last year."

The event's competitive categories (see Winners List on preceding page) were graciously sponsored by Keslow Camera, Nanlux, Arri, Panavision, Canon and Red Digital Cinema. A slew of career honors were also handed out: The Lifetime Achievement Award (Andrzej Bartkowiak, ASC); the Career Achievement in Television Award (Michael Goi, ASC, ISC); the Presidents Award (John Simmons, ASC); the Lifetime Documentary Award (Joan Churchill, ASC); the Curtis Clark ASC Technical Achievement Award (Pete Romano, ASC); and the Board of Governors Award (producer Kathleen Kennedy). The ceremony's annual surprise honor, the Bud Stone Award of Distinction for "extraordinary service to the Society," went to ASC associate Suzanne Lezotte, who appeared suitably flabbergasted.

Following the dinner, the crowd made its way to another area of the Beverly Hilton for an epic afterparty, sponsored by Panavision, that was still rolling well past midnight.

The festivities had truly begun two nights before the gala, on Feb. 21, at the ASC Nominees dinner, also sponsored by Panavision. Guests gathered on the front lawn of the ASC Clubhouse, under a tent artfully lit by Peter Moss, ASC, ACS. Much mingling ensued, both before and after the nominees received their plaques. The following morning, the Society hosted a brunch sponsored by Sony amid warm, exceptionally pleasant L.A. weather.

For more images and complete coverage of this year's ASC Awards, including a full video of the livestream, visit theasc.com.

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1. Host Ed Helms regales the audience with his opening monologue. 2. Presenter Bradford Young, ASC offers a warm greeting to Presidents Award recipient John Simmons, ASC. 3. Simmons takes a break from his annual role as the show's announcer to accept his honor. 4. Patrick Cady, ASC circles actor Titus Welliver as the pair introduce the award for Episode of a One-Hour Regular Series. 5. Sam McCurdy accepts his award for the *Shōgun* episode "Crimson Sky." 6. Jomo Fray, a 2022 *AC* Rising Star of Cinematography, accepts the Spotlight Award for the feature *Nickel Boys*. 7. Awards Chair Chuck Minsky, ASC opens the show. 8. ASC President Shelly Johnson delivers his address. 9. Director Randal Kleiser and actor Diane Baker salute Goi for his television accolade.

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2025

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1. The ASC's Chief Operations Officer, Alex Lopez, receives a standing ovation for protecting the Society's Clubhouse during the L.A. wildfires and for his many years of tireless service. 2. Actor Michael Douglas applauds his friend Bartkowiak. 3. Lachman is escorted to the stage by his daughter, Bella. 4. Singer and musician Sofia Isella and her father, ASC member Claudio Miranda, introduce the Music Video category. 5. Pepe Avila del Pino, AMC takes home the Music Video prize for "313." 6. Actor Kevin McKidd and ASC member Oliver Bokelberg present the award for Limited or Anthology Series or Motion Picture Made for TV. 7. Director Jennifer Arnold and spouse Patti Lee, ASC introduce the award for Episode of a Half-Hour Series. 8. Richard Rutkowski, ASC accepts the Half-Hour Series trophy for the *Sugar* episode "Starry-Eyed." 9. Cynthia Pusheck, ASC and Pete Romano, ASC backstage after she presented him with the Curtis Clark ASC Technical Achievement Award. 10. Emily Deschanel and her dad, ASC member Caleb Deschanel, prepare to announce the Theatrical Feature Award.

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1. Bob Beitcher, president and CEO of the Motion Picture and Television Fund, announces his organization's support for the ASC Relief Fund. 2. Greig Fraser, ASC, ACS introduces the Board of Governors Award. 3. ASC members Dean Cundey and John Conroy banter as they present the Spotlight Award. 4. ASC members Ava Berkofsky and Shana Hagan flank filmmakers Gregory Kershaw (second from left) and Michael Dweck, who won the Documentary Award for *Gaucho Gaucho*. 5. ASC associate member Suzanne Lezotte with ASC member Richard Crudo, who surprised her with the Bud Stone Award of Distinction. 6. Buddy Squires, ASC introduces the Lifetime Documentary Award. 7. Women and nonbinary cinematographers pose for an exuberant group photo.

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1. Elegant lighting by ASC member Peter Moss enhances the ambience at the Nominees' Dinner. 2. The nominees pose for a group photo. 3. Johnson and Minsky flank Theatrical Feature nominee Lol Crawley, BSC, whose cinematography for *The Brutalist* also earned him the Academy Award. 4. Nominees Zöe White, ACS (*Hold Your Breath*) and Alice Brooks, ASC (*Wicked*) flank their fellow nominee Catherine Goldschmidt, ASC, BSC (*House of the Dragon*), who became a Society member shortly after the Awards. 5. Panavison President and CEO Kim Snyder expresses her admiration for cinematographers and their artistry. 6. Guests enjoy pleasant weather at the Honorees' Brunch. 7. Posing during the brunch are (back row, from left) Buddy Squires, ASC; Nancy Schreiber, ASC; Katelyn Cox; Andrzej Bartkowiak, ASC; and Charles Herzfeld, with (front row, from left) *AC* managing editor Andrew Fish; Steven Shaw, ASC; and Ed Lachman, ASC. 8. Dan Perry, Sony's sales and business development manager for digital cinema cameras, offers warm words on a warm day.

Click Through to *AC* Website Exclusives

Visit today to discover the latest product updates, interviews, profiles, videos, podcasts and treasures from the ASC's archives. Some of our latest content includes:

Tari Segal Welcomed as New ASC Member
The cinematographer's recent credits include the series *Long Bright River* and *Interior Chinatown* and the forthcoming feature *Bookends*.

Dreaming in Black-and-White
An informal survey of modern monochrome motion pictures that took advantage of the format's unique abstract attributes.

Goldschmidt Welcomed into ASC Membership
The Emmy- and ASC Award-nominated cinematographer's recent credits include the series *House of the Dragon* and *The Last of Us* and the forthcoming feature *Out There*.

The Japanese Method for *Ran*
Legendary director Akira Kurosawa prefers to use multiple cinematographers on all of his films, dating back to 1954's *The Seven Samurai*.

Sundance Standouts 2025
A look at some outstanding features that screened at the recent Sundance Film Festival in Park City, recommended for their distinctive camerawork.

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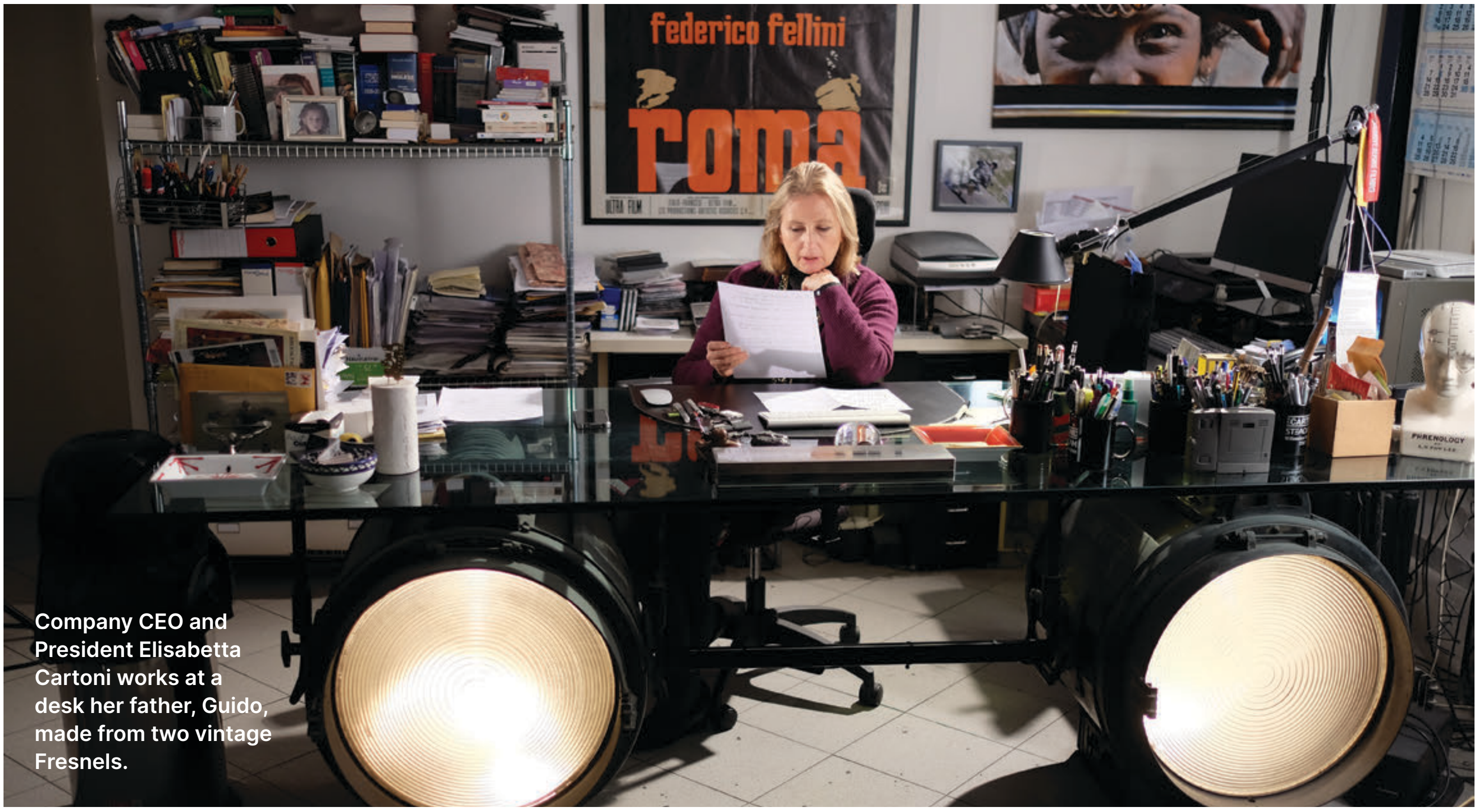


Company CEO and President Elisabetta Cartoni works at a desk her father, Guido, made from two vintage Fresnels.

Cartoni's 90th Anniversary: Soulful Support of the Camera Industry

By Patrick Jong Taylor

A good set of sticks is just as important as the camera it holds. With that in mind, *AC* commemorates the 90th anniversary of Italy's Cartoni Professional Camera Support. We recently spoke with CEO and President Elisabetta Cartoni, an ASC associate member, to discuss the company's history and its evolution into an iconic brand.

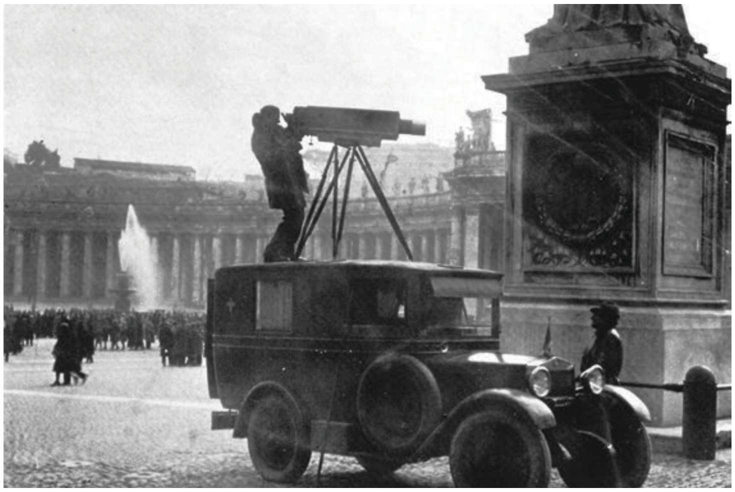
"In 1935, my grandfather Renato was the head of documentary at Istituto Nazionale LUCE," she explains. "He was a very passionate cinematographer with the early cameras. They were extremely heavy, so there was physical difficulty when shooting."

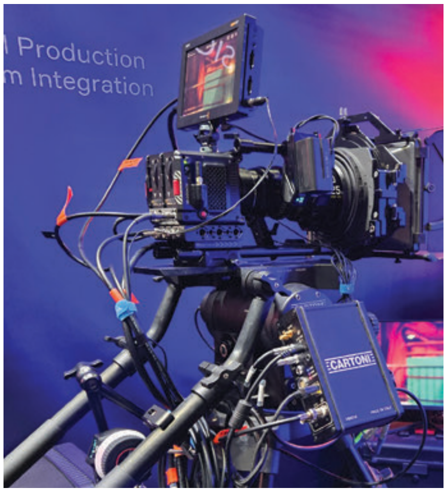
In search of sturdy camera support that also allowed for more creative possibilities, Renato developed a Gyro head that featured pan and tilt movements controlled by a pan bar. Six of these revolutionary heads were produced for use by Renato and his colleagues. "It was only after the war, when my father, Guido, found the drawings and patent, that he decided to follow his father's dream [and manufacture more]."

A chance encounter in 1938 sowed the seeds for Cartoni to become an industry leader. Arri founders August Arnold and Robert Richter had just introduced the Arriflex camera, and on a trip to Italy, they noticed their Italian counterparts using Gyro heads. Soon, Guido Cartoni reproduced the head for the new Arriflex.

Close relationships with users are characteristic of the Cartoni experience, notes Elisabetta. "This was something my father was doing from the beginning and passed to me, and I passed to my team. We go on set and see what they do, how they do it, problems they encounter, things that bother them, stuff they wish to have."

To test Cartoni's prototypes, she notes, the company had "very faithful guinea pigs," including masters of their craft. "My father was a very good friend of Federico Fellini and his favorite camera operator, Giuseppino [Giuseppe Rotunno, ASC, AIC]." As is often the case with prototypes, not every change passed muster with the clientele. "Sometimes they would say, 'No, no, that's not working,' but that was nice, because they were so straightforward





and genuine that the information you [got firsthand was] invaluable."

Over the years, Cartoni grew from a fledgling local outfit to a world-renowned brand that holds 34 patents on fluid-action and counterbalance systems. In 1992, the company won an Academy Scientific and Engineering Award for the development of the repeatable fluid modules for the FL7 head, first patented in 1972. In 1999, Cartoni released the Lambda head, introducing nodal heads in two and three axes. This technology allows for parallax-free pans and tilts, and earned the company an SOC Award in 2016.

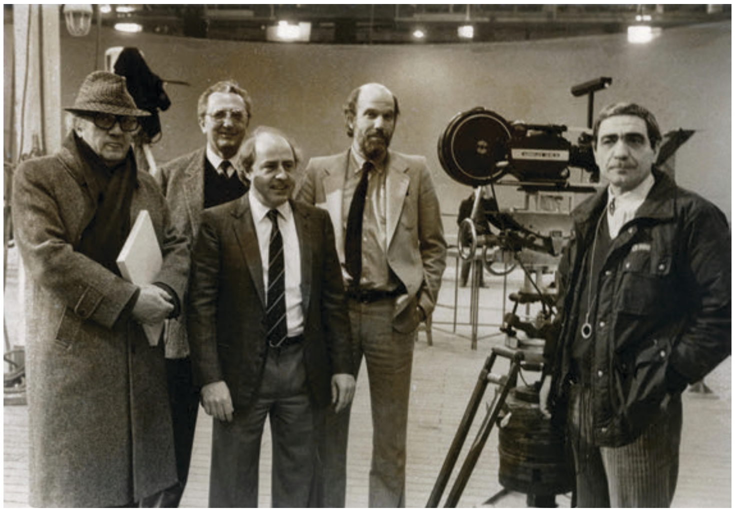
One of Cartoni's latest innovations, the Smart Deployment System, aims to assist documentary, sports and ENG professionals who require nimble, reliable supports. "With one lever, it opens two tripod stages, making for a much faster setup," Elisabetta notes.

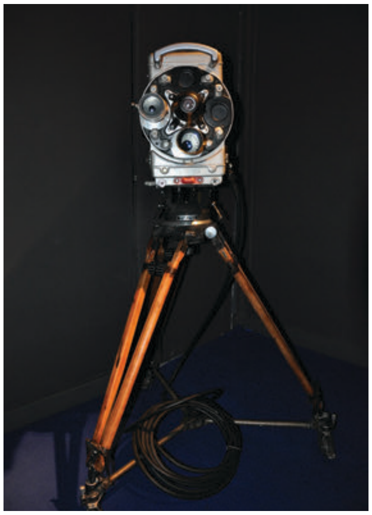
On the cinema front, Cartoni's current bestseller for small camera packages is the Focus 22 fluid head, which is a direct response from the company to customers' requests. This kit is equipped with a long camera plate, which aids in the use of long focal lenses.

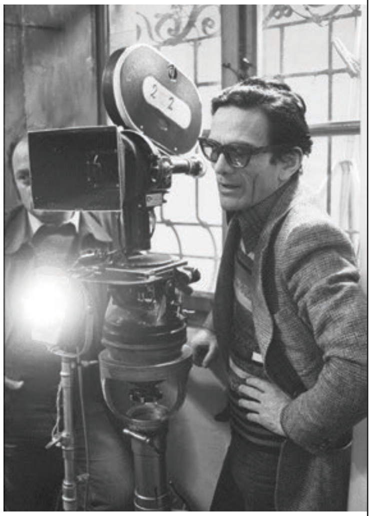
Attentive to industry trends, Cartoni has designed various solutions for virtual production, Elisabetta adds. "There is a [growing] need for perfect identification of camera position and movement," she says. The first encoded heads reached market in 2012 as the e-Cube, with joystick operation of a pan-and-tilt head. As the e series developed, it became clear that more precision was necessary to meet industry needs. "We decided to go with four million encoders, which is beyond what the eye could perceive. But as my friend Sam Nicholson [ASC] pointed out to me, you need this precision, because every time you do one process in post, you lose accuracy." The four-million-encoder-count products debuted with the e-Magnum in 2020, followed in quick succession by the e-Master, e-Maxima and e-Lambda.

Similarly, Cartoni's VR Box represents a shift toward producing highly specialized electronic interfaces that track data flow. "It is essentially a conveyor of data — not only

Above, from left: Renato Cartoni films the blessing of Pope Pius XII in St. Peter's Square, Vatican City (1939); the Cartoni e-Maxima 30, featuring four million encoders for virtual production, holding a Red Komodo; the Focus 22 fluid head and extra-long cine-style plate. Below, from left: Federico Fellini, Guido Cartoni, Arri CEO Robert Arnold, Arri sales manager Jürgen Nussbaum and Giuseppe Rotunno, ASC, AIC at the Cartoni factory (1972); pictured at the RAI Museum of Radio and Television in Turin is one of the first television cameras, supported by Cartoni standard wooden legs; Pier Paolo Pasolini with an Arriflex 35 supported by a Cartoni standard on a bazooka basket (1961).







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the data from our head, but also the lens data, camera data, gen-lock and live data," she says. The second-generation VR Box is being designed to greatly expand data options. "We don't know what data will be required [in the future], so we want to be ready to accept any data — everything."

As Cartoni looks ahead to its centennial, the company stays rooted in its founding traditions. "One of the nice things about celebrating 90 years is that the company is still in our family, and we all work together as a family," Elisabetta says. "There are some values of pride and passion that are more perceived here than in other companies that might pass from one owner to another group and lose the soul. We will try not to lose our soul. Maybe keeping our soul is the secret of still being successful!"

For more information, visit cartoni.com.

Sony | 2 Lenses

Sony Electronics has released the 400-800mm *f*/6.3-8 G OSS full-frame zoom and the 16mm *f*/1.8 G full-frame prime.

The 400-800mm E-Mount lens is compatible with Sony's 1.4x and 2x teleconverters, allowing for an extended reach of up to 1,600mm. The lens features six ED glass elements to minimize chromatic aberration, an 11-blade circular aperture for smooth bokeh and Optical SteadyShot stabilization.

The 16mm prime features two Advanced Aspherical and multiple ED glass elements and an 11-blade diaphragm. Silent XD linear motors provide quick autofocus, and optimized video features enhance cinematic performance.

For more information, visit electronics.sony.com.

Zeiss | Otus ML Lenses

Zeiss has announced the Otus ML lens series, available in two focal lengths: 1.4/50mm and 1.4/85mm.

Bringing Zeiss' optical expertise to mirrorless cameras, including Sony E, Canon RF and Nikon Z mounts, the lenses feature precise manual focus and manual aperture control. A blue sealing ring protects the camera-lens interface from dust and moisture, while additional seals provide protection against splashes. The lenses function effectively in temperatures ranging from -4°F to 131°F.

For more information, visit zeiss.com.

26-45
T2.9
45-85
T2.9

Venus Optics | Laowa Proteus 2x Anamorphic Zooms

Venus Optics has launched the Laowa Proteus 2x Anamorphic Zoom Series with two lenses, a 26-45mm and a 45-85mm.

Weighing 3.3 pounds and measuring 7.5", the lenses feature a constant 2x squeeze ratio, cinematic flare options, oval bokeh and a close-focusing distance of up to 1'7". They come with a native Arri PL mount, with an interchangeable Canon EF mount included. Additional bayonets can be purchased separately.

For more information, visit venuslens.net.

Elation Lighting | Paragon

Elation Lighting has released the Paragon LED profile moving head, designed for concert tours, broadcast studios and immersive installations.

Built around a custom-engineered white LED engine with Elation's proprietary TruTone variable-CRI system, Paragon offers CRI adjustments from 72-93. The interchangeable-lens system features Profile, Wash, Beam, Low and High CRI applications and the choice of standard profile lens, Fresnel lens or snoot.

For more information, visit elationlighting.com.

Submit news, updates and releases to newproducts@ascmag.com

DJI | Dock 3

DJI has released Dock 3, a “Drone in a Box” solution that supports vehicle mounting.

Packaged with either a DJI Matrice 4D or Matrice 4TD drone, the Dock 3 can operate and charge in temperatures up to 122°F and as low as -22°F when pre-heated.

The Dock 3 supports horizontal calibration and cloud-based dock-location calibrations. Two docks can be simultaneously deployed on a single vehicle for dual-drone rotations. For fixed-mounted deployments, a new D-RTK 3 Relay Fixed Deployment Version can be added to enhance anti-interference performance for video transmission and satellite acquisition.

For more information, visit dji.com.

Lightbridge | C-100 Grid System

Lightbridge has unveiled the C-100 Grid System.

The solution enables crews to create custom Precision Reflector arrays of nearly any size, shape and surface. Its Grid Clamp Adapters are purpose-built for the system. Engineered to interface with industry-standard grip scaffolding tubes and hardware, the solution features a screw-on coupler baseplate attached to a dedicated truss clamp. Each Lightbridge C100 frame accepts a Grid Clamp/Coupler assembly. Lightbridge recommends three-point mounting for overhead crane situations.

For more information, visit thelightbridge.com.

Elinchrom | LED 100 C

Elinchrom has introduced the LED 100 C.

Designed for Elinchrom and Profoto users, the solution delivers 100 watts of bi-color output and 50 watts of RGB capability in a compact, lightweight body. It offers a color-temperature range of 2,700-6,500K, fully adjustable RGB in 1-degree increments, and 15 built-in special effects. It is compatible out of the box with Elinchrom OCF and full-mount and most Profoto-mount light shapers.

For more information, visit elinchrom.com.

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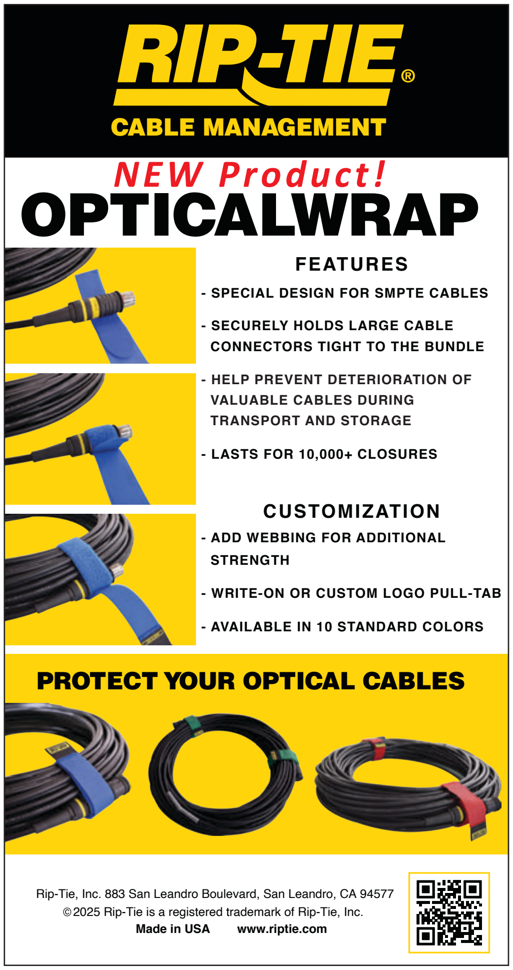
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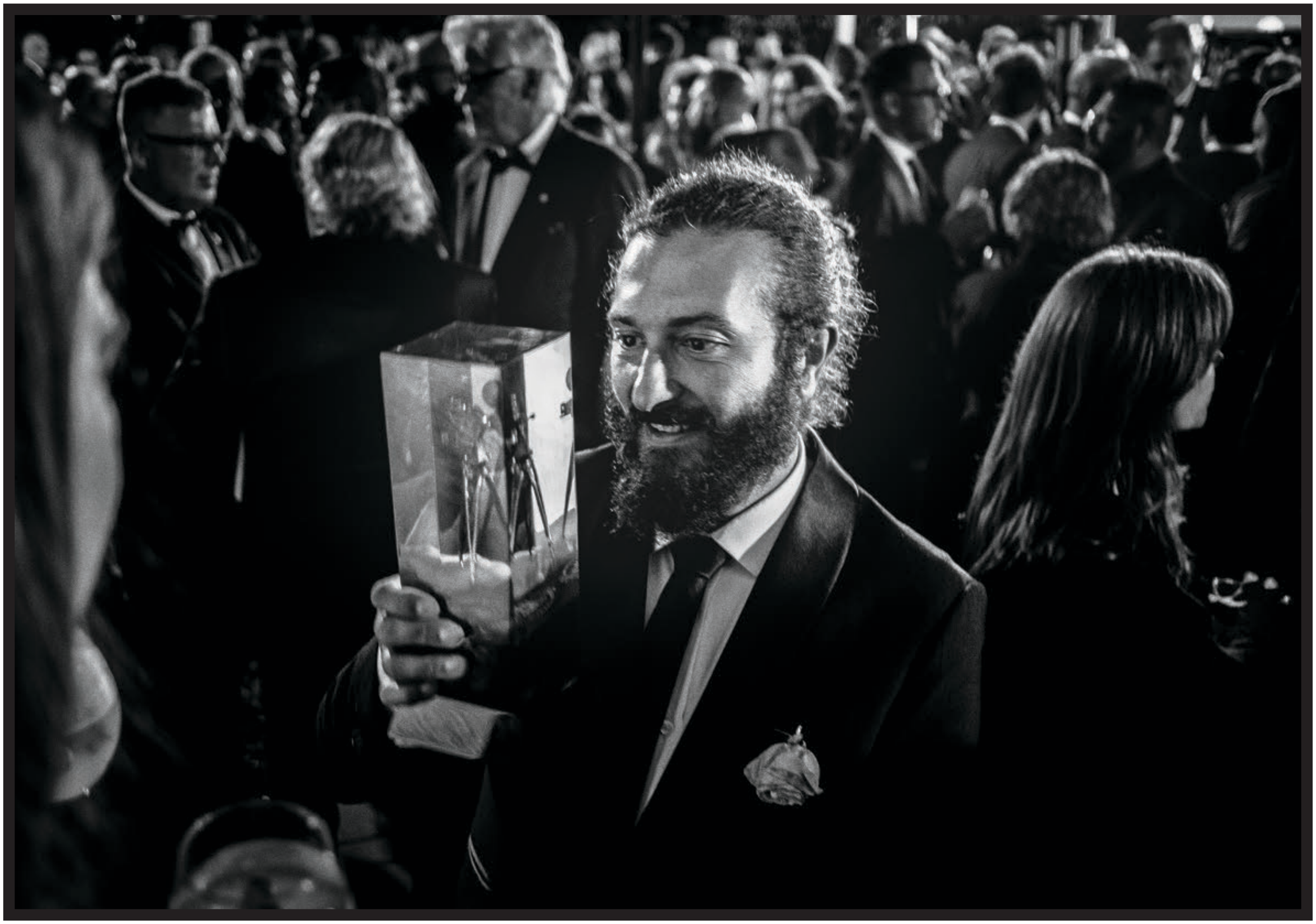
Wrap Shot

Milestone Moment by Robert Primes, ASC



"Documentaries are more important to our world today than ever before," Samir Ljuma, who shot *Honeyland* with fellow cinematographer Fejmi Daut, told Samantha Dillard in the February 2020 issue of *AC*. "I can't express enough my feelings of gratitude to the ASC for opening the doors of their temple to documentary cinematography."

These sentiments were shared during the Macedonian cinematographers' acceptance speeches for the inaugural ASC Documentary Award, initiated in 2020 to recognize exceptional cinematography in non-fiction filmmaking. In this striking photo taken by Society member Robert Primes and submitted for our 2025 Stills Issue, Ljuma admires his trophy after the ASC Awards ceremony had wrapped.

The Documentary Subcommittee of the ASC Awards Committee, chaired by ASC associate member Jay Holben, brought this new honor to fruition. The initial subcommittee comprised Society members who are passionate about celebrating the art form, some of whom have photographed documentaries throughout their careers: Joan Churchill (who received this year's Lifetime Documentary Award), Robert Gantz, Michael Goi, Mark Irwin, Ellen Kuras, Stephen Lighthill, Don McCuaig, Steven Poster, Nancy Schreiber, Buddy Squires, Rodney Taylor, John Toll and Checco Varese.

Honeyland, an intimate portrayal of a beekeeper working in a remote village of North Macedonia, was the subcommittee's selection — after numerous submissions from the Society's active and associate members — as 2019's best-shot documentary. The category's other nominees were Evangelia Kranioti (*Obscuro Barroco*) and Nicholas de Pencier (*Anthropocene: The Human Epoch*).

This year's Documentary Award winners were Michael Dweck and Gregory Kershaw, for *Gaucho Gaucho*; also nominated were Michael Crommett (for Episode 3 of the NatGeo series *Photographer,* "Dan Winters: Life is Once. Forever.") and Andrey Stefanov (*Porcelain War*).

ARRI | Digital Cinema

Continuing to support the ever-expanding filmmaking community, The Studio-B&H now features ARRI's newly expanded ALEXA 35 camera selection. Having proven massively popular with both film and television creators, this Super 35 4.6K camera is now available in a more budget-friendly ALEXA 35 Base model and a Premium version sporting all the bells and whistles of the original model. The Base ALEXA 35 offers multiple Apple ProRes recording formats up to UHD 4K60 using lower-cost CODEX Compact Express drives with the option to add ARRIRAW, high-speed, Open Gate/Anamorphic, and ARRI Textures licenses of various lengths as needed for each production. The Premium camera comes with all the licenses, providing maximum creativity for more robustly funded projects. Both models offer enhanced sensitivity to EI 6400, and HDR, CDL, and 3D LUT support.

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